

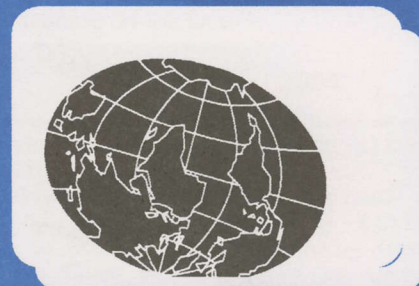
14-10-04 10 AM

Bob Cooper's

OCTOBER 15 2004

SatFACTS

MONTHLY



Reporting on "The World" of satellite television in the Pacific and Asia

IN THIS ISSUE

**A 7m dish +
"faith" = 's
Athens 2004**

**America's
Latest DTH
Hardware**

**3.4 GHz
Terrestrial:
Law Breaker?**

- ✓ Latest Programmer News
- ✓ Latest Hardware News
- ✓ Update: Fiji Sky Pacific
- ✓ Observer Reports

Vol. 10 ♦ No. 122
Price Per Copy:
NZ\$10/A\$11/US\$/Eur8



Hualin Pty Ltd

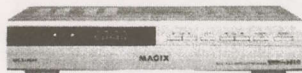
Satellite Equipment Specialists
Import and wholesale

Unit 51/159 Arthur ST Homebush West, Sydney Australia 2140
Phone: (02) 9763 1366 Fax: (02) 9763 1356
Email: sales@hualin.com.au Web: www.hualin.com.au

For all prices, product information and banking details please visit the website or phone us.

Specials this month

Magix 9800 - Digital Receiver



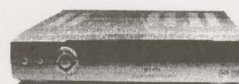
- New Generation DiSEqC 1.3 Universal LNBf using DiSEqC
 - Smart Code System (Soft Patch)
 - User Friendly
- Price: \$190 AUD + GST

Satlook - Signal Meter



- Digital, Analogue and combined versions available
 - A must for the professional
 - Simple menus and functions
- Price: Phone up for Quote

DreamMAX - DT470



- Irdeto embedded
 - 4900 Channel Memory
 - DiSEqC 1.2
 - User Friendly
- Price: \$200 AUD + GST

Everything? Yeah we got

LNBf

- Zinwell C Band
- Zinwell KU Band
- MTI C Band, Superhigh gain
- One Cable Solution - CBand
- Dual Output KU 11300 MHz

Positioners

- Superjack EZ-2000
- Superjack DP-6600, DiSEqC 1.0/1.2
- Technosat DP-200, DiSEqC 1.2
- Manual Actuator Driver - EW101
- SAP 2000: 99 Memory positioner

Actuators

- Superjack HARL-3618, 18" Actuator
- Superjack HARL-3624, 24" Actuator
- Superjack DG-120, H/H Mount

Receivers

- SuperNET CA, Irdeto Embedded
- Success, Free-to-Air
- Dion DT-370, Free-to-Air Receiver
- Dion 2x CI, Hardware AllCAMed
- ChangHong, Mediaguard embedded
- SuperNET Terrestrial, DVB-T
- Phoenix High Definition STB

Dish and mounts

- 1.2, 1.8m Solid Prime focus
 - 45, 60, 65, 85cm KU dish Offset
 - 2.13m, 2.27m, 2.4m, 3.0m, 3.07m, 3.7m, Mesh Dish, Light and Heavy
- Duty PSI and JOYSAT Available

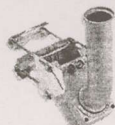
- CBand Wall brackets
- CBand Concrete mounts and stands
- KU Gutter mounts
- KU Wall mounts
- KU Float mounts
- KU Tinroof mount

Dion 818 CI - Digital Satellite Receiver



- Slim Size and User Friendly OSD
- 2x CI (Common Interface) slots
- Hardware AllCAMed

SuperJack H-H Actuator, DiSEqC embedded



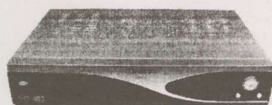
- All it takes is one coaxial cable...
- NO MOTOR CABLE REQUIRED
- DiSEqC Positioner EMBEDDED!

Supernet - Terrestrial DVB-T



- Digital Terrestrial Receiver
- Slim Design
- High Quality Picture
- Easy to install and use

Magix 9200A - Digital Satellite Receiver



- FTA + Software Patched
- FAST BLINDSCAN TECHNOLOGY
- DiSEqC 1.0/1.2 Compatible

Switches and Splitters

- 2 and 4 way DiSEqC switches
- 0/22kHz switches
- 2 and 4 way cable splitters
- V/H Multiswitch
- 0/12V Switch

Cable - 15m, 25m, 305m packs

- RG6-U Dual Shield Coaxial Cable
- RG6-U Quad Shield Coaxial Cable
- Cat5 Actuator Cable

Plugs

- F Connectors, Screw or Clamp types
- Cable joiners
- AV Splitters
- Cable Strippers
- Cable clampers
- Various other joiners and accessories e.g. RCA/SCART cables and converters

Misc

- 2.4GHz AV Sender
- Irdeto 2.06B CAMs
- Satlook Digital Signal Meter
- Satlook Analogue Signal Meter
- Satlook Digital + Analogue combo
- Satellite finders
- Angle level measure instrument
- High Quality Compasses



SatFACTS MONTHLY

ISSN 1174-0779

is published 12 times each year (on or about the 15th of each month) by Far North Cablevision, Ltd.

This publication is dedicated to the premise that as we enter the 21st century, ancient 20th century notions concerning borders and boundaries no longer define a person's horizon. In the air, all around you, are microwave signals carrying messages of entertainment, information and education. These messages are available to anyone willing to install appropriate receiving equipment and, where applicable, pay a monthly or annual fee to receive the content of these messages in the privacy of their own home. Welcome to the 21st century - a world without borders, a world without boundaries.

Editor/Publisher
Robert B. Cooper (ZL4AAA)
Office Manager
Gay V. Cooper (ZL1GG)

Reaching SatFACTS

Tel: 64-9-406-0651
Fax: 64-9-406-1083
Mail: PO Box 330
Mangonui, Far North
New Zealand
Email: Skyking@clear.net.nz
<http://www.apsattv.com>

Subscription Rates

Within NZ: \$70 p/y
Australia: AV-COMM Pty Ltd.
PO Box 225, Brookvale.
N.S.W. 2100
61-2-9939-4377
Elsewhere: US\$75p/y
All copies sent airmail post.

The fine print

SatFACTS Copyright 2004 by Robert B. Cooper: any form of copying is a violation of our international copyrights. Advertising rate sheet available, upon request.

our ELEVENTH year!

COOP'S COMMENT

"Subject embargoed." Often, at least monthly, news sources share with me details of a new project or changes in existing services with the understanding, "the subject is embargoed until we release the information." What that means to you, the reader, is that we, unfortunately, have been told "something" which we are, by agreement, unable to report to you - at least up until our deadline date (which usually occurs around the 5th-8th of the month to allow for printing and mailing of SatFACTS by the 15th).

SatFACTS, unlike many publications, does not rely upon "formal press releases" to ferret out the latest developments in our field of interest. In fact, as a general rule of thumb, I virtually totally ignore "official press releases" deducing that by the time we get them into print, everyone who cares will already know the content of such "formal" documents anyhow. Rather, I use my contacts developed over more than 46 years of covering this field of interest to discover the real nitty-gritty details which ultimately usually determines how or why something is "really" happening.

In this issue we cover our portrayal of the current "TV situation" in Samoa and American Samoa. Not all of the people involved in these two countries will be pleased nor in agreement with our analysis. That's OK - as long as we have the "facts" correct, we depend upon our four decades-plus of practical experience to interpret for you the "real" story. The "real" story often differs from the "official" press releases, as you would already suspect.

In my estimation, and it is of course personal based upon experience, the launch of Fiji's SKY Pacific is the most important "story" to come through these pages this calendar year. It is not that often that a new satellite service offers first-time TV to such a broad region and in fact this may well be the last such "broad region" to come under a DTH "footprint" on planet Earth.

In SF#121, we reported in some detail the NSS-5 Ku band footprint for SKY Pacific, and pointed out where this new service will change the way people in 20-some Pacific nations will participate in the world. That story is further explored in this issue (p. 6).

We are sitting on ("embargoed until further notice") significant new information relating to SKY Pacific. Honesty ensures that you know this but integrity ensures that I continue to sit on "embargoed" past our October deadline (which happens to be October 6th). Attempts to get permission to "leak" at least some of this information has failed. You will see why and understand the position we occupy on this subject in our November issue (well - we assume the "embargo" will be lifted by early November!).

SKY Pacific is happening. There is no question about that, in our mind or in fact. But as those who read and understood our SF#121 report will appreciate, Fiji TV was "awarded" transponder space on NSS-5 Ku only after a Dutch Appeals Court heard the evidence in the case and ruled against New Skies Satellite. Understandably, New Skies did not take this decision lightly and began to look for some "solution" to the court decision which would allow use of transponder space other than that awarded by the court.

Fiji TV is adamant - it sees satellite as a way to expand its coverage area to something larger than the 100+ islands of the native country. Existing Intelsat Ku footprints, preset by Canal +, will not allow that. Anything less than the NSS-5 Ku footprint is not acceptable and if you question that wisdom, start on page 6 here and read on.

PS - "Embargo" partially lifted - see "At Press Deadline," p.27.

In Volume 10 ♦ Number 122

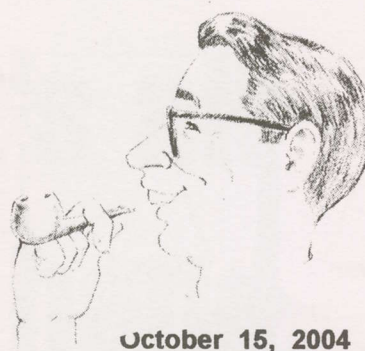
Samoa and American Samoa - life in the slow lane -p. 6
America's most recent DTH hardware -p. 18

Departments

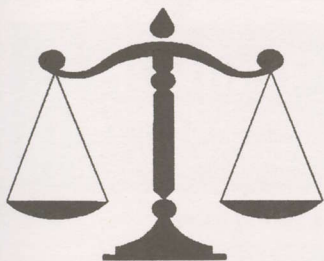
Programmer/Programming -p.2; Hardware/Equipment Update -p. 4; Technical Topix (LNBs that beat terrestrial interference; 3.5 GHz in NZ; Ku LNB(f) Noise Figure) -p. 22; SatFACTS Digital Watch -p. 23; Supplemental Data -p. 26; With The Observers -p. 27; Scratchi (is 3.4 GHz terrestrial "illegal?") -p. 31

-On the cover-

Outpost to the world. His name is Bill Hyman and against all odds his 7m satellite dish, definitely worse for wear, made it possible for American Samoa to tune in the 2004 Athens Olympics. - p. 6



October 15, 2004



UNwired in Australia

"We need the editorial support of SatFACTS to make a major issue of the appearance of the 3.4-3.5+ GHz terrestrial point to multipoint service that has already created havoc in the Sydney area, and, is rapidly being rolled out to the balance of the country."

Jason Racic, aDigitiaLife, Qld.

Our "Scratchi" commentary column looks at this situation (p. 31) this month. The Australian Government is pretty much free to do whatever it wishes, even under 'ITU' agreements (International Telecommunications Union), because the ITU can only recommend, not "mandate" uses and users in the frequency range above 1 GHz. Still, there could be a (legal) case here against the ACA for ignoring the 1979 ITU agreement that C-band be expanded to include the 3.4 - 3.7 GHz region. Australia does not use, internally, C-band except for feeds to the Australian broadcasters/cable/Ku transmitted ethnic services and perhaps does not recognise 3.4 - 4.2 or 3.7 - 4.2 GHz as a spectrum "chunk" to be protected from terrestrial interference.

No KAVA in Solomon Islands

"Page 1 SF#121 mentions that in the Solomon Islands we drink KAVA. Not true. The Solomons are the same as PNG where the locals chew beetlenut with a squirt of lime. Not I. Also note the country's population is currently estimated at 425,000 (SF p. 7 said 305,000) although 80% of whatever the population may be lives in rural subsistence without regular electricity. I hope that Sky Pacific will give Hitron a bit of a run for their money as Indovision is sold in the Solomons by Satellite Solutions and this is a grey area because of copyright. I know that I will be one of the first to sign up for this new service, here, as soon as it becomes available."

Jim Ruhe, Solomon Islands

The 20% (85,000?) that do have electrical service could still be a promising market for Sky Pacific. Chewing beetlenut must have some interesting side benefits if the population has leapt from 305,000 to 425,000 in the past decade. Or perhaps it is that "squirt of lime!"

PROGRAMMER PROGRAMMING PROMOTION

UPDATE

OCTOBER 15, 2004

In the eyes of the beholder. American Samoa version of "Idol" TV show craze is part of minor league prepping carried out even in far flung outposts of American influence. American Samoa Cable-vision service promotion with the winners sent on to Hawaii.

Keeping the faith.

PCS-TV is a one-man TV station providing unique services to an isolated country. Find out the "secret" on p. 12, here.

\$100 million - Australian? Is this the revenue the Australian Government received for sale of the 3.4-3.5-3.6 GHz spectrum space to the recently activated UNwired (et al) links that are destroying C-band for many? Was the Australian Government acting legally, within the terms of its ITU treaty obligations, when it sold off this spectrum space? Could Government be "sued" for treaty violation if in fact it did violate the ITU treaty? Would you put \$5 or \$10 into a legal pot to fund a court case against Government? Scratchi is on the case (p. 31).

New Zealand digital? Here is how it shapes up - *today!* The FTA broadcasters (TVNZ, CanWest, Prime and TAB) *estimate* that within "manageable costs" **75%** of New Zealand homes *could* be reached with terrestrial DVB provided: (1) Government gives them new (almost exclusively to be UHF) channels *without cost*, and, (2) Stations are allowed to create multiple channels for multiple programmes including possibly pay to view. Remaining 25%? *Satellite*, using a free to air format transponder on B1 (early) and D1 (later) - essentially same as Sky pay-TV footprint. TVNZ has purchased second half of transponder on B1 (12.456V now, adding 12.483V) and many suspect this ten programme channel bandwidth will be FTA TV for the 25% that will *never* be within range of a DVB-T (terrestrial) transmitter. There are flies in this plan: If we assume TVOne, TV2, TV3, Prime and TAB each multi-channel with 3 each, it comes to 15 programme channels; 4 each is 20 programme channels. Not in one transponder, anytime soon! Obviously they need an additional half or full transponder to get *all* of their planned services to all of their potential viewers. And terrestrial folks such as regional Triangle? Probably terrestrial DVB only.

"MY IDOL"
Auditions held @ Maliumai Beach
Resort Fogagogo on August 11-13
and August 18-20 at 6:00pm
For more information contact Taofi Kalali
Phone: 252-2736 pr 699-9366
Email: malosole@hotmail.com

PCS-TV

The Pacific Channel (Samoa)

BILL HYMAN
GENERAL MANAGER
billh@samoatel.com

P.O. Box 1087
Pago Pago
American Samoa 96799
Phone: (684) 699-6853
(684) 633-2623
pcstv11@yahoo.com

It's all in hand.

No matter which you need, Laceys.tv has a better TV measurement answer that we'd like to put in your hands.

Features go beyond true Bit Error Rate and fully calibrated Modulation Error Ratio, view of the levels of any seven channels simultaneously, comprehensive data logging, Spectrum and Expanded Spectrum.

DaTum10 started it all, S20 continues the theme and now C30 and D40 now complete the family.

And they all ship in this robust rubber holster.



**Ask about the first
Digital meter to be
FOXTEL Approved.**

Sole and exclusive Australian distributor:

Laceys.tvTM

12 Kitson St Frankston VIC 3199

Tel (03) 9783 2388 Fax (03) 9783 5767

branches in Sydney, Ulverstone & Woolgoolga.

e-mail: info@laceys.tv www.laceys.tv

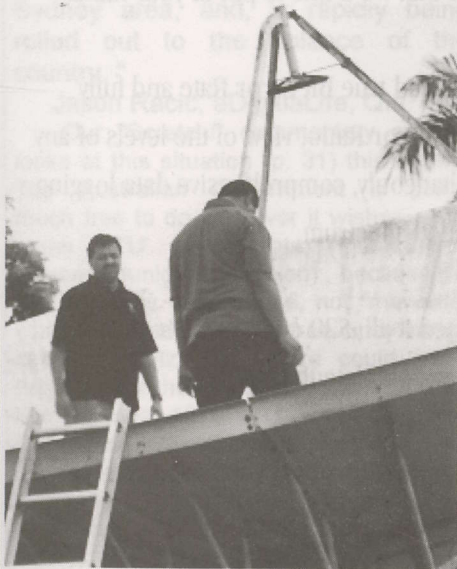
Satellite Terrestrial Cable Digital Analogue

I did not do it - alone!

"With respect to SF#121's report on Fiji TV - while the report singles me out for accolades regarding making Fiji TV a financial success shortly after the launch, in fact the local staff headed by Tarun Patel were already successful when I stepped off the flight from Auckland. My contribution has been the 35+ years of experience I add to the day to day work environment."

Ken Clark, CEO, Fiji TV Ltd.

Nothing beats experience excepting perhaps personal modesty.



(above - Tarun Patel [left], Fiji TV's "hands-on" guy; satellite is just another ladder to climb.)

Not much info - but

"Thank you for your inquiry - the web page, <http://www.nasa.gov/multi-media/nasatv>, contains information concerning NASA programming."

public-inquiries@hq.nasa.gov

Reports to SF say NASA's I701 signal (3854RHC, Sr 2.000, 3/4) has increased in signal strength (late September) but a 2.4m dish with RHC feed/dielectric plate mod to feed appears still necessary. Would that they might change FEC to 1/2 to help small dish systems cope better!

Scratchi identity?

"I thought the identity of the fellow who wrote the (original) CQ (magazine) 'Scratchi' column was ultimately revealed to be George Floyd (amateur W2RYT) - helped me many a time endure riding the school bus as a kid when I lived in Washington (state)."

Brett Graham, SE Asia

We can assure you "our Scratchi" is not named George Floyd or any derivative of that name. What is this fascination for identifying Scratchi? W2RYT, by the way, passed on decades ago.

HARDWARE EQUIPMENT PARTS

UPDATE

OCTOBER 15, 2004

3.5 GHz TI/UNwired? First significant results are in courtesy Garry Cratt at Av-Comm Sydney. Yes, there *are* solutions. Garry notes, "In cases of mild interference, repositioning the dish and fitting a dual polarity LNBf is a fix. When interference is strong, we have sourced a single polarity DRO (dielectric resonant oscillator) LNB that fixes the problem. In cases of severe interference, *none* of the dual polarity LNBf will work; *period*. With severe cases, the only solution is a single polarity PLL LNB, or, a quality orthomode (dual pole coupler) and two of these LNBs. For commercial installations, we are using both EMC and MFC filters combined with PLL LNBs for bullet-proof protection. It has certainly been a learning curve - a meeting of installers in Sydney revealed that none of them had any *real* concept of interference, where it comes from, how to cure it." It will be interesting to see how folks who paid perhaps as little as \$1,000 for their complete (home) systems react to spending several hundred more to make their "toys" work again. Yes - we begin "**Garry Cratt's 3.5 GHz Cookbook**" in an early issue; step by step instructions for curing UNwired TI.

Welcome to the *real-world early* adoptors. The Australian terrestrial networks have after a year of study come to a decision on the software format for new-to-be-available "interactive" set-top boxes. The existing 400,000 STBs will be - *sorry*, out of luck; *apparently not* upgradeable. Oh well, run out and buy a new one so you will have a "complete set" of technology, in stages of evolution.

New Zealand's late-entry to satellite. The country filed (2002 - quietly without fanfare) with the ITU for one or more new satellites to be located at 158E in the 3.7-4.2 GHz band (NZLSAT-1), 7.25-7.75 band (NZLSAT-2) and 19.7-20.2 Ka band (NZLSAT-4). A second ITU filing, still pending formal acceptance, NZLSAT-3, asks for permission to use 10.95-11.4, 12.5-12.75 as well from 158E. Co-ordination (permission to operate from *previously* approved satellite operators) will be required and the process could require several years.

Airborne. AirTV1 will be the first satellite designed specifically to send radio/TV/Internet to planes in flight; scheduled Ariane launch date 2007. First bird will be geostationary over Europe/Atlantic/North America airline routes, future versions will add Europe/ Asia, then Asia/Pacific/North America. AirTV1 will provide 60+ channel of TV direct to aeroplane seat-back screens including pay-to-view options.

Popular Apsattv web site still experiencing server problems - hopefully resolved before this appears. Interim access has been through <http://www.202.9.227.18/~csutton/>. Note: That is "~" and not "-".

Dubai "satellite shop heaven" back to normal - police sweep (SF#121, p. 2) was caused by growing concerns over "cards" being sold for French "adult" service - a *no-no* in the region.



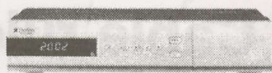
Phoenix Technologies

Satellite Equipment & Accessories One Stop Supermarket



Phoenix JT3100T Digital Terrestrial Receiver

- Digital Audio Output (S/PDIF)
- Dolby Digital
- Wide Screen (16:9) Hot-Key
- S-VHS, CVBS & RGB Video Outputs



- Super-Fast Channel Scan
- Electronic Program Guide
- Channel Rename Function
- Software Upgradeable

\$180/each (for 6 unit)

\$160/each (for 30 units)

Magix 8800 Receiver (Made in Korea)

\$220

NextWave 3220 FTA digital receiver (Made in Korea)

C & Ku band input, PAL/NTSC auto converter
5000 channels Picture in picture EPG
DiSEqC1.0/1.2 control
TV/VCR Scart & RCA outputs

\$160

Optus C1 Aurora Kit Coship digital receiver

(Iredto cam embedded)
11.3 GHz/Universal Ku
LNBF, 75cm dish, Mount
bracket

\$315/set

+Aurora card \$75

Coship digital receiver (Iredto V2.09 CAM embedded)

\$220

SPACE 5300A CI Receiver (Two Common Interface Slots)

Auto PID correction
C & Ku band input
PAL/NTSC auto converter
5000 channels
Picture in picture EPG
DiSEqC1.0/1.2 control
TV/VCR Scart & RCA output

\$180

NextWave 3220C digital receiver (Two common interface slots) (Made in Korea)

C & Ku band input
High symbol rate >45,000
PAL/NTSC auto converter
5000 channels Picture in picture EPG
DiSEqC1.0/1.2 control
TV/VCR Scart & RCA outputs

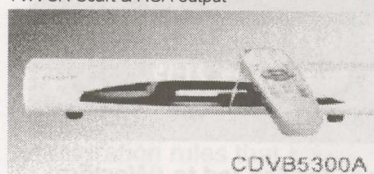
\$220

LBC, ART, Al Jazeera Kit Coship digital receiver

(Iredto cam embedded)
C-band LNBF, 2.3m
Mesh dish.

\$435/set

+Subscription fee
\$20/month*



CDVB5300A

SPACE 2300 digital receiver

Auto PID correction
C & Ku band input
PAL/NTSC auto converter
5000 channels
Picture in picture EPG
DiSEqC1.0/1.2 control
TV/VCR Scart & RCA output

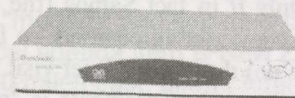
\$140

Iredto 2.06B CAM	\$140	Zinwell C band LNBF	\$35
Viaccess CAM	\$140	Zinwell 10.70/11.3	\$25
65cm offset dish	\$27	/Universal Ku band LNBF	
75cm offset dish	\$40	MTI C band LNBF	\$35
Superjack DiSEqC	\$95	One cable solution C-band	\$50
1.2 motor		LNBF	
Universal Mount	\$15	Satellite finder	\$30
2.1m mesh dish	\$120	Silver Card (10/bag)	\$125
2.3m mesh dish	\$170	Gold Card (10/bag)	\$85
(motorized)		RG6 Stripper	\$20
2.4m heavy duty			
mesh dish	\$210	RG6/11 Crimper	\$30
(motorized)			
1.8m 6 panel dish	\$130	Angle meter (made in USA)	\$85
RG 6 Dual cable	\$75	Compass	\$30
(305m/roll)			

Free to air kit (for NSS 6, Optus B3)

Including dish, LNBF,
digital receiver, etc.

**Start from
\$250/set**



Changhong 1000 Digital Receiver Aston 1.05 Cam embedded

Best Value For Indian & French
(C-band on Asiasat 3s & Ku
band on Intelsat 701)
C & Ku band input, 2000
Channels.

\$170

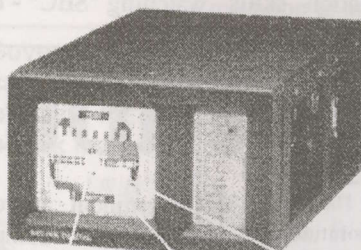
(Top quality) TESTING EQUIPMENT SPECIAL (made in Sweden)

Satlook MARK III \$950

- 4.5" B/W monitor for PAL/NTSC/SECAM
- Satellite-receiver 920-2150 MHz
- Tunable sound 5.5-8.5 MHz
- Spectrum analyzer
- Expanded spectrum
- LNB voltage 13/18 V
- 22 kHz tone switch
- KU- and C-band (normal/inverted video)
- Built in rechargeable battery
- Only 3.5 kg complete with carrying-case

Satlook Digital NIT \$1550

We are pleased to introduce our new SATLOOK Digital NIT. NIT stands for NETWORK INFORMATION TABLE, which today almost all DVB-satellites transmit as standard. The NIT contains information about the Satellite and TV/Radio-channels. It's very easy to identify a Satellite when reading out this information. The different TV/Radio-channels on a transponder can also be read-out.



Satlook COMBO \$2550

- Input frequency: 2-900 MHz and 920-2150 MHz
 - 4.5" B/W Monitor for PAL/NTSC/SECAM
 - Lots of memory positions for spectrum pictures
 - RS232 for PC-connection
 - Built in, rechargeable battery. Only 7kg complete with carrying case
- TV-PART:**
- 2-900 MHz spectrum analyzer
 - Presents full range spectrum (and expanded)
 - Very high accuracy, $\pm 1\text{dB}$ (at 20°C)
- SAT-part:**
- 920-2150MHz spectrum analyzer. Digital BER, QPSK and S/N-ratio
 - Satellite-ID and TV/Radio-channel info (NIT)
 - Tunable audio bandwidth 5.5-8.5MHz
 - LNB voltage 13/18V, 22kHz tone switch
 - DiSEqC according to level 1.0, 1.1, 1.2
 - KU- and C-band (normal/inverted video)

Full range of C/Ku band satellite dish - panel & mesh, prime & offset, from 45cm to 4.5m

Full range of Zinwell, MTI C/Ku LNBF - Dual output, one cable solution, C/Ku combination

Full range of actuator - From 12" light to 36" heavy duty

DiSEqC 1.2 Positioner & SuperJack EZ2000 Positioner

2.4 GHz AV sender and Remote extender

RG6 Cable and Motor cable

Full range of satellite accessories



THIS MONTH SPECIAL



SPACE 2300A FTA Digital Receiver \$1300/(10 units)

Magix 8800 Digital Receiver \$1200/(6 units)

Phoenix 2.3m Mesh dish \$1650/(pallet of 10 sets)

Zinwell LNBF 15K C-band LNBF \$648/(box of 24 units)

Come To Us For Your Best Deals

302 Chesterville Rd. Moorabbin VIC 3189

Website: www.phoenixsatellite.com.au

Phone: (03) 9553 3399 Fax: (03) 9553 3393

E-mail: sales@phoenixsatellite.com.au

TV is not always a priority

SAMOA: TV speaks Chinese AMERICAN SAMOA: Cable rules

Before SatFACTS arrived in Samoa, we heard the story on Fiji claiming that the very day the latest Harry Potter movie (*Prisoner of Azkaban*) appeared on videotape (and DVD) in Samoa video shops for rental, SBC (the "Samoa Broadcasting Corporation") broadcast the movie entitle, uncut, from a video tape. Arriving on Samoa days later, we were greeted with the *Samoa Observer* news story featuring the headline appearing below. And although the *Observer* report did not specifically mention the "Harry Potter" incident, we found numerous locals who had in fact witnessed the telecast. In fact, it appears that SBC does this sort of thing quite routinely.

Illegal? Only if in fact Samoa (the country) is a party to international copyright agreements - a fact we were unable to verify (yes or no) during our brief visit there. A country that is not a party to such agreements is "neutral ground" where anything goes - including showing the latest Harry Potter flick free to air to viewers. Or, perhaps, Government does not care.

Samoa's single TV channel is owned and operated by the Government. It is a band III VHF channel, located on a mountain behind the Robert Lewis Stevenson home above a suburb of Apia, the capitol. The station covers a region of out to 50km provided the reception end employs a reasonable band III antenna and a modicum of installation skills



CCTV-9 (English) is primary service fed to (Western) Samoa homes by Government owned and operated TV service. The price is right.

installing the antenna. A survey conducted amongst locals we met and talked with suggests that more than 50% of the homes do in fact have a television set although a high percentage of these depend upon video tapes (including those sent from New Zealand relatives) and not much time is spent watching "SBC" - the Government station. In July, the Samoa

TV copyright abuse alleged

By Autagavaia Tipi Autagavaia

The Samoa Broadcasting Corporation (SBC) Television One, two local cable TV Networks and several video shops have been accused of breaking copyright laws.

The accusations were made by Samoana Broadcasting Limited (SBL) managing director Tuiasau Leota Ueese Petaia in a letter to the Minister of Broadcasting, Palusalua Fa'apo II.

The letter was also copied to the Prime Minister, Tuilaepa Aiono Sailele Malielegaoi, Minister of Justice, Gaina Tino and Attorney-General Brenda Heather-Latu.

A copy has been seen by the Samoa Observer.

Tuiasau is one of two local business operators who were recently granted approval to set up TV stations.

Samoana Broadcasting Limited is saying it is prepared to spend up to \$US120,000 (\$T342,000) a year to buy programmes and movies from overseas to show on his network.

Broadcasting Corporation is a major cause of concern as they continue to abuse the law and screen some of the latest releases, clearly without having bought, and been granted screening rights for these products.

"Both the cable television companies currently in operation in the country infringe this law on a daily basis. Local video shops also have for years abused the law."

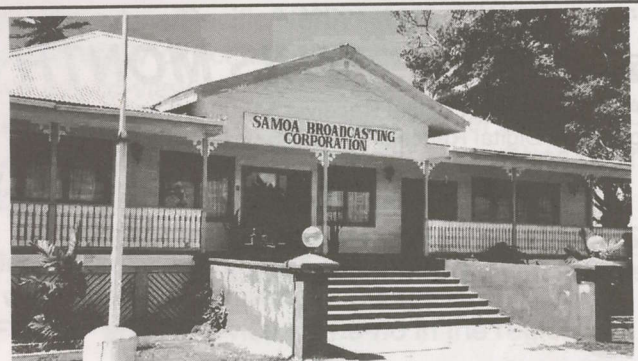
SBC chief executive Faiesea Lei Sam Matafeo declined to comment when contacted. She said she was not prepared to respond to faceless claims unless she was given a copy of the letter.

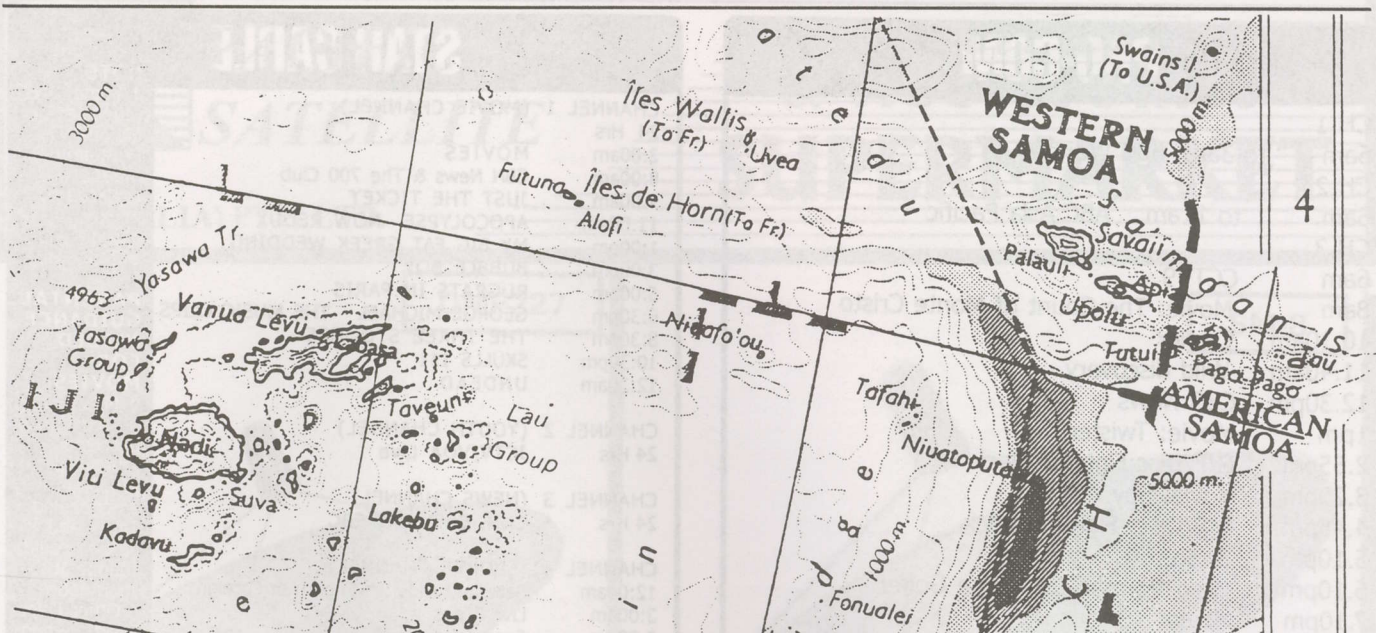
Manager of the Star Cable Network Feo Nemaia said Tuiasau should not be making noises until the public gets a taste of what his network will provide.

"It's better for him to show his television service first, then he can make noises," Feo told the Samoa Observer.

But Tuiasau warned that

Government approved the launch of two competitive TV channels, to compete with SBC, which is another of the "Huhhh? What is happening here?????" mysteries of the country. First of all, why would a Government monopoly allow two new competitors? The answer is, "politics." But it gets more confusing when you learn that SBC-TV is for sale - on the open market. If you are Government, and you plan to sell SBC-TV, why would you, *before* selling SBC, create two new channels which will compete with SBC? Would their operation not make SBC worth less? Would it not have been "smarter" to sell SBC and *after* the sale for maximum (monopoly) dollars *then* create two new competitors? Why





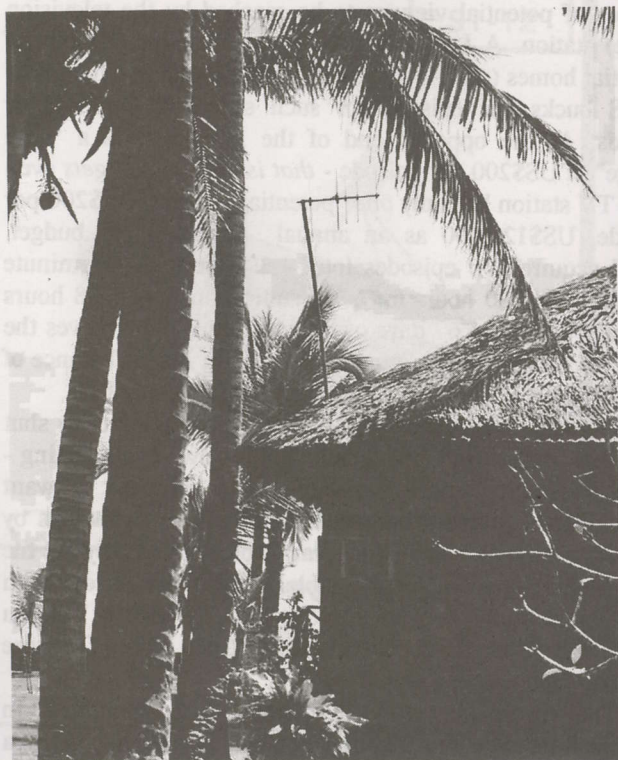
(Western) Samoa has German and British/New Zealand heritage. The population is 170,000 with large families translating to around 31,000 "potential" TV households. Country is surprisingly "modern" and standard of living, for a mid-Pacific region nation, well above average. Still, the number one political agenda item is New Zealand's immigration rules that keeps most Samoans "at home." American Samoa, 60-80 miles east, allows total freedom for its' islanders to travel to, work in, and live in, USA.

would you reverse the process and authorise the competitors *before* the sale thereby driving down the selling price of SBC - the monopoly?

"It is the Samoan way" we were told. Not to understand, simply to accept.

It gets even more weird. Take "cable television." Which is apparently *not* cable at all, it is through-the-air UHF

VHF (band III) channel operated by Government, provides service but on-ground technical support for viewing locations is essentially non-existent. NZ imported band III antenna on wooden stick mast.



television. The "cable" label apparently originates in American Samoa, some distance to the east, where (as we shall see) a "real" cable system exists. Possibly not too sure what a cable system is, or is not, two local firms have called themselves "cable TV" and then proceeded to install ten to one hundred watt UHF transmitters covering capitol Apia - and not much else. And in the hilly, rugged terrain of Apia, reception is at best spotty when coupled to aerial installation techniques that would fail any test administered by even a quarter-competent installation guru. (Small MATV systems do exist - some of which simply relay the "cable/UHF" channels with varying degrees of degradation.)

The UHF aerials are imported from New Zealand and for the most part look second (or third) hand before they landed in Samoa. It is not difficult to imagine that in the Samoan suburbs of Auckland there is a crew of guys going around in the dead of night "removing" Sky UHF aerials from homes where the residents are temporarily away, and then shipping the chunks of aluminium to Samoa. Their re-installation in and about Samoa is at best "shoddy" using RG-59 cable spliced together in the open air without any form of weather or moisture (of which there is an abundance) protection (we saw one using [indoor] household electrical twin-lead as a transmission line). That anyone receives *any* of these "cable" channels well enough to work out what is on the screen is a challenge. Reception we witnessed in downtown Apia was P3 if you were generous, P2 in most cases.

Equally strange is the abundance of newspaper space given to the repetitive (day in and day out) "Cable TV schedules" (illustration, p. 8). SBC, the Government owned and operated station, does *not* have a schedule printed and it is, at least, available beyond the very limited Apia "cable" coverage. As the schedules here show, "Pro-Com" has three channels on the air while competitor "Star Cable" may have up to five channels - depending upon which UHF transmitter is down-for-service at the moment.

PRO-COM

CH.1	
6am	to 3am BBC World
CH.2	
6am	to 11am ABC Asia Pacific
CH.3	
6am	CCTV9
8am	Movie: The Count of Monte Cristo
10.10am	Carrier
11.40am	Wild discovery
12.30pm	CBS News
1pm	Movie: Twister
2.55pm	G/F/Disc: Fighting Back
3.20pm	Movie: Spy Kids III
4.45pm	G/F/Disc: Fighting Back
5.10pm	Sports
6.10pm	Greg Norman Complete Golfer
7.10pm	Movie: TBA
9pm	Movie: TBA
10.40pm	Late Show
11.25pm	Late Night Movie: American Sweetheart
1am	MTV
2am	CCTV9
3am	Close Down
Program is subject to change without notice.	

STAR CABLE

CHANNEL 1 (MOVIE CHANNEL)	
24 Hrs	
2:00am	MOVIES
8:00am	CBN News & The 700 Club
9:00am	JUST THE TICKET
11:00am	APOCALYPSE NOW REDUX
1:00pm	MY BIG FAT GREEK WEDDING
3:00pm	BUBBLE BOY
5:00pm	RUGRATS IN PARIS
6:30pm	GEORGE MICHAEL - THE MUSIC CLIPS
8:30pm	THE THREE STOOGES
10:30pm	SKULLS 111
12:30am	UNDEAD
CHANNEL 2 (YOUTH CHANNEL)	
24 Hrs	JCTV/VOA Live
CHANNEL 3 (NEWS CHANNEL)	
24 Hrs	CNN, CBS, abc, CBC
CHANNEL 4 (SPORTS CHANNEL)	
12:00am	Satellite Feeds English or Foreign
3:00am	Live Feeds "
9:00am	Sports Varieties "
1:00pm	Other Programmes "
6:30pm	Jeopardy/Wheel of Fortune
8:00pm	Other Sports (replay)
10:00pm	Satellite Feeds English or Foreign
CHANNEL 5 GENERAL ENTERTAINMENTS	
24 Hrs	RFO Channel (Fr)
	(Movies, MTV, Sports, Cartoon)

NOTE:
 1 Some scheduled Movies/Programmes may be replaced by more entertaining live satellite feeds.
PARENTAL GUIDANCE NEEDED FOR MOVIES.
 2 MTVs played between scheduled programs.
 3 Scheduled Times and Movies could change at short notice.
 4 Other Live Sports, when available, is provided on Ch-3.
 Bookings Assistance- Please contact us on Ph: 77-71795.

This is quite strange. Apia, the capitol community in (Western) Samoa, has "cable." Well, they call it cable but in fact it is (mostly) UHF (frequency), apparently not encrypted, low power (10-100 watt) transmitters. And two firms competing with each other. UHF aerials, imported from NZ, are sparse (suggesting the take-up, at least by "paying customers," is on the low side). Note that "Pro-Com" (cable) has three (UHF) channels while "Star Cable" has five. How a subscriber to one (equipped with a UHF tuning TV set and a UHF receiving antenna) is kept from watching the competitor as well is unknown. *Not much of a business plan.*

Movies are important segments of both schedules - films on VHS and DVD acquired, one assumes, through some sort of arrangement with a local video shop or sent up by courier from New Zealand. The key phrase here, as we verified, is at the bottom of the Pro-Com listing:

"Program is subject to change without notice."

Right on. Any relationship between the newspaper schedule and the actual schedule is a total coincidence. Why is SBC not co-listed?

"We maintain a 70% imported, 30% local schedule," Faiesea Lei Sam Matafeo told SatFACTS. Not quite. In her explanation, she actually means 70% (by her reckoning) of programming is looped from a satellite receiver - almost exclusively the Chinese English language CCTV-9 through PAS-8. That's the "imported" stuff. And the 30%? "Local" nominally means it originates from the TV studio which would be acceptable *if they had* a TV studio. Actually, tape players crammed into a corner are "locally fed" with tapes. Which gets us back to the "TV Copyright abuse alleged" story we illustrate.

"The Samoa Broadcasting Corporation (SBC) Television One, two local cable TV Networks and several video shops have been accused of breaking copyright laws," the newspaper story began. The accusations came from one of the two recently approved license holders, Tuiasau Leota Uelese Pataia, who has formed Samoana Broadcasting Limited (SBL). His newspaper interview cites, "(SBL) is prepared to spend up to US\$120,000 a year to buy programmes and

movies from overseas." That number is curious as US and British programme sources have established "rate cards" for every TV programme (and separately, movie) available. The rates are based upon a number of conditions - foremost is the number of potential viewers to be reached by the television (cable) station. A Los Angeles TV station with millions of potential homes (all TV equipped) pays top dollar - thousands of US bucks per episode for such shows as Seinfeld or Friends. At the opposite end of the rate sheet is a "base charge" of US\$200 per episode - *that is as low as it gets* even if the TV station has only *one* "potential" viewer. At \$200 per episode, US\$120,000 as an annual programming budget, would acquire 600 episodes total - 300 hours if 30 minute episodes. So 300 hours for a TV station on the air 18 hours each day equals 16.67 days of programming. That leaves the projected SBL operation running a test card for the balance of 348(.33) days of the year. \$120,000? A curious number.

The accuser, SBL, clearly (if not cleverly) wants to shut down his competition *before* he starts his own broadcasting - using alleged copyright violations as a weapon. "I want Government to forbid the screening of the latest movies by these stations (SBC, Pro-Com, Star Cable) unless they get the proper authorisation." A noble effort, but laced with backdoor political ramifications. It happens SBL's Tuiasau Petaia was recently the head of SBC (then called Televisé Samoa) - "the Samoan way."

The newspaper story also notes SBL has been in conversations with Fiji TV (see SF#121, p. 6), "discussing a



**PACIFIC
SATELLITE**

(AUSTRALIA) PTY. LTD.

ANTENNA & ACCESSORIES SUPERMARKET

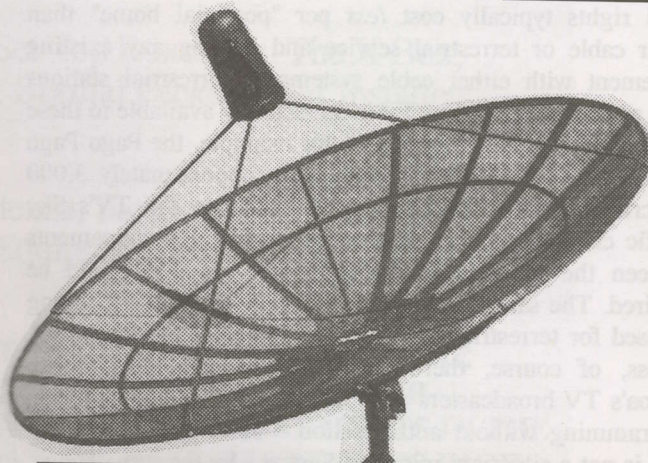
DMF227



SPACE[®]

Economical, light
duty, general
purpose usage

SM-8



PSA

Reliable, medium duty
can be used in windy
areas

One brand does NOT fit all; at Pacific Satellite you have mega-choices - three name brands!

**Pacific Satellite is the EXCLUSIVE authorised DISTRIBUTOR
for COMSTAR antenna products in Australia.**

ST-12



COMSTAR[®]

Strong, heavy duty,
suitable for cyclone
areas

**...is a registered trademark for the world's
BEST C/Ku Rolled Expanded Metal 2 - 13
GHz antennas!**

Comstar products are simply unbeatable - available from
7 feet to 16 feet and everyone a winner!

Products are also available through following quality distributors:

Seto Electronic Services (NSW) Tel: (02) 9743 6053 Fax: (02) 9743 6053

V-Com (Australia) Pty Ltd (VIC) Tel: (03) 9886 8018 Fax: (03) 9886 8787

Universal Satellite TV (N.Z.) Ltd. (New Zealand) Tel: (64) (9) 274 7998

3/71 Beenleigh Road, Coopers Plains, Qld 4108 Australia

Ph: +61 7 3344 3883 Fax: +61 7 3344 3888

Email: info@psau.com <http://www.psau.com>

possible business link through the purchase of programs from Fiji." The report included the comment, "Fiji Television has set itself up to be a major supplier of television programming to the South Pacific (and) is concerned about copyright abuse over unauthorised screening of material it has bought rights for."

In fact, Fiji TV's new planned footprint places a 0.6-0.8m footprint over Samoa, and Fiji TV has indeed purchased DTH rights to serve *individual* homes in a number of island countries, *including Samoa*. But DTH rights are not the same as, (1) cable TV rights, or, (2) terrestrial rebroadcast rights. DTH rights typically cost *less* per "potential home" than either cable or terrestrial service and lacking any existing agreement with either cable systems or terrestrial stations such as SBC or SBL, Fiji TV is not actually available to these two modes - at least initially. If, for example, the Pago Pago (American Samoa) cable system, with approximately 3,000 subscribers, wanted to receive and distribute Fiji TV's Sky Pacific channels, *before* that could happen new agreements between the programme suppliers and Fiji TV would be required. The same scenario would apply to SBL/SBC being licensed for terrestrial rebroadcast of Fiji TV programming. Unless, of course, there is no Government response to Samoa's TV broadcasters and "cable" services simply lifting programming without authorisation - as they presently do. This is not a situation unique to Samoa - by the way. Tonga, Solomon Islands, Cook Islands and others have drifted along for some years grabbing programming from whatever sources (satellite, tape, and more recently DVD) as they can catch passing by their facility.

For Fiji TV, it is a mostly win-win situation. Lacking agreement with local terrestrial broadcasters or cable, they will build on the DTH portion of the service and deal directly with consumers through island-local agents in each area. If the terrestrial folks "grab" Fiji programming, a cat and mouse game ensues - identifying which addressable boxes are likely to be involved and turning off the boxes. Or seeking Government intervention along the lines of copyright violation. While this is ongoing, individual installs of DTH dishes will move ahead anyhow. Alternately, if copyright acceptable agreements can be reached, the broadcasters such as SBL or SBC will legally access Fiji TV, pay for the service, and Fiji TV's universe grows regardless.

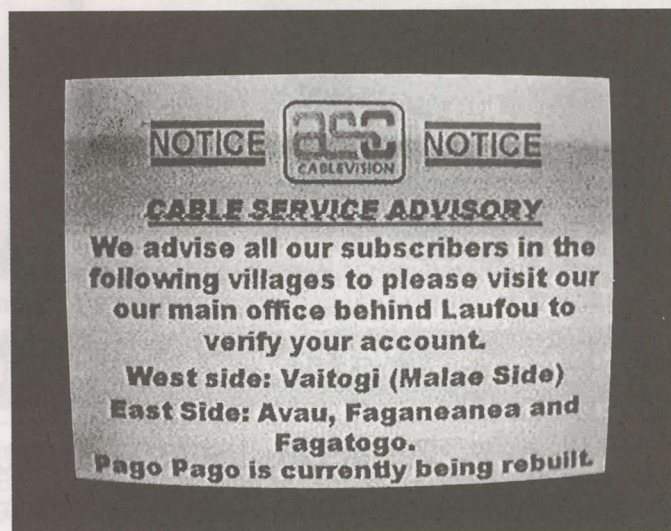
American Samoa?

The American version of Samoa is a strange mixture of Polynesian culture and the yankee spread of consumerism. For the approximately 44,000 people who live here, it is a tug of war between two different worlds. Freedom to travel to stay in (even permanently) the 50 USA states is a major plus. But there are obligations to match - yellow ribbons marking homes of residents who have sons and daughters serving in the US military are overpowering and banners hung above streets reflect the reality: "God Bless Our Troops - and Bring Them Home Safely." During a SatFACTS visit in mid-August, 400 locals - members of the US National Guard, Pago Pago branch - were preparing to ship out to Iraq for a year of active duty.

A community of 44,000 is borderline too small to support a *real* local television station, especially when it is nearly 4,000 miles from the nearest terrestrial microwave link plug-in point to network headquarters in New York. If residents here identify closely with any part of the USA, it would be Hawaii



American Samoa Cablevision has plurality of dishes (this is but a portion), most big (top 10m) but only a few are in use. System was hit by hurricane earlier this year wiping out aerial suspended lines and rebuild of damage in is ongoing (announcement, below).



(also some 1,600 miles away). Hawaiian TV stations are satellite connected (just another form of terrestrial microwave) and if Pago Pago was large enough, it could also receive programming via this technology. In fact, Pago Pago has two stations, one a low power (600 watt) VHF band III station and the other a behemoth 70,000 watt VHF band I station. Hardly anyone actually receives TV over the air (OTA) in American Samoa - cable is more convenient and boasts up to 30 channels. We saw more OTA rooftop antennas in Apia (approaching 100 miles from Pago Pago) than on the entire US administered island although the Western Samoa "fringe area" viewers of KZVK-TV's 70kw service have to be fanatical about TV (any TV!) just to bother with the expense of a large band I antenna, mast-head amplifier and sorting through various forms of interference unique to the sub-tropics. The Government owns and operates the 70kw channel and its history is unique in all of the world. Originally, nearly 40 years ago, there were three such channels - all band I, all high power. American Samoa is administered by a local elected body but the *real* authority rests in Washington (DC) because American Samoa is a "Territory of the United States." Washington provides tens of millions of dollars each year to prop up the Pago Pago economy, which otherwise depends largely on a tuna cannery

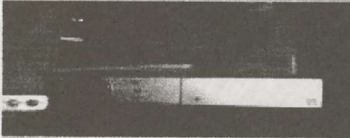


ELECTROCRAFT

AUSTRALIA

CCTV, SATELLITE, TV ANTENNA, SECURITY & DATA SYSTEMS

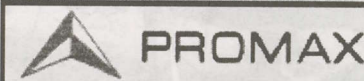
This Months Specials: MATV, SATV, and TEST EQUIPMENT



Huge Range of Set Top Boxes Inc. The X-Box, Strong, Phoenix. Special Packages for Installers.



All Televés Antenna, Satellite Dishes and Head-End and Fibre Equipment. At Excellent Prices.



PROMAX TEST EQUIPMENT PROVIDES THE MOST RELIABLE, DURABLE, VALUE-FOR-MONEY MEASUREMENTS INSTRUMENTS IN THE MARKET TODAY. PROMAX REPRESENTS HIGH-QUALITY WITH ALL AUTHORISED SERVICE AND WARRANTY DONE IN AUSTRALIA.

MC-577

Terrestrial/Satellite

None

Spectrum Analysis

None
C/N

None

PROLINK-2

Terrestrial/Satellite

DVB-T/DVB-S

Spectrum Analysis

BER (after/before), CSI, C/
N

None

PROLINK-3

Terrestrial/Satellite/Cable

Optional

Spectrum Analysis

BER-before/after (opt),
CSI/MER (opt), C/N

MPEG-2 DVB channel/
Video/Audio ID (opt), Ser-
vice List (opt)

PROLINK-4

Terrestrial/Satellite/Cable

DVB-T/DVB-S/DVB-C

Spectrum Analysis

BER-before/after, CSI/
MER, and Constellation, C/
N

MPEG-2 DVB Channel/
Video/Audio ID, Service
List

*Ask About Our Special End Of Year Prices On All PROMAX Equipment.
Finance Packages Also Available From As Little As \$25 Per Week*



Now Stocking Professional CCTV Systems with 2 Year Warranty. 4 to 16 Channel DVR's. Dome and Full Length Cameras, Lenses and High Resolution Monitors.



ElectroCraft

36 Binney Road, Marayong, 2148 N.S.W.
P.O. Box 103, Marayong, 2148 N.S.W. Australia
Phone (02) 9671 5588 Fax (02) 9831 2139

operated by the folks at Starkist for the flow of currency (which is, of course, the US dollar).

A need to radically and rapidly improve the skills of locals was identified by a Washington group in the mid 1950s and from that revelation sprung a plan to build a trio of TV stations dedicated not to Saturday morning cartoons and weekend grid-iron but rather to education. It was a noble aspiration; if the schools were third rate because the teachers were fourth rate, find *one* really skilled teacher for each school subject and put that person on television. Then equip the schools with TV sets and train classroom assistants to monitor the student's use of the programming.

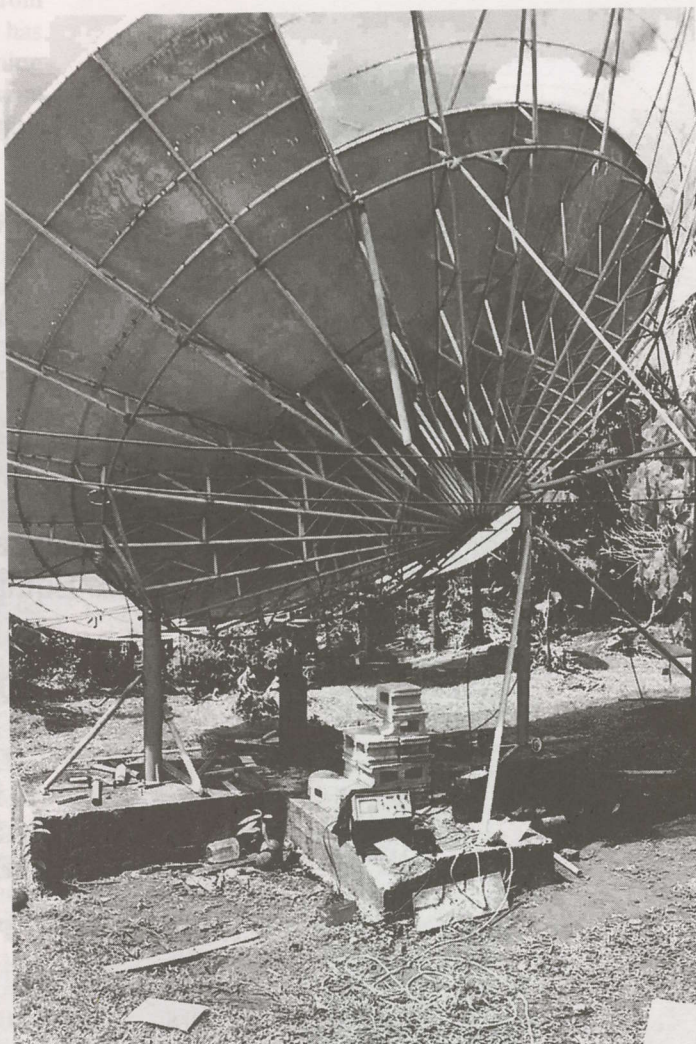
This three channel service floundered along for several decades, decaying a bit each year and finally either because teaching skills had improved or because Washington lost interest in the project, funds were cut and two of the three TV transmitters turned off (and dismantled). Which leaves KZVK on the air, for no particular purpose except for rare local events, and, the quite unexplainable use of the transmitter to plug into satellite fed AFRTS DTS (Direct to Sailors) service which it rebroadcasts throughout most of the day (and night; see SF#121, p. 27).

Before there was cable, some American entrepreneurs imported MMDS (2.1 GHz) equipment and created a multiple channel (analogue) service fed by a combination of USA tapes and some services from I701 C-band (such as the original CNN, ESPN when they were FTA a decade ago from 180/177E). But the MDS equipment (transmitting and home-receiving) worked poorly when new and progressively worse with each passing month in the harsh salt-laden, sub-tropical climate and as the MMDS business failed a new plan arrived; cable television.

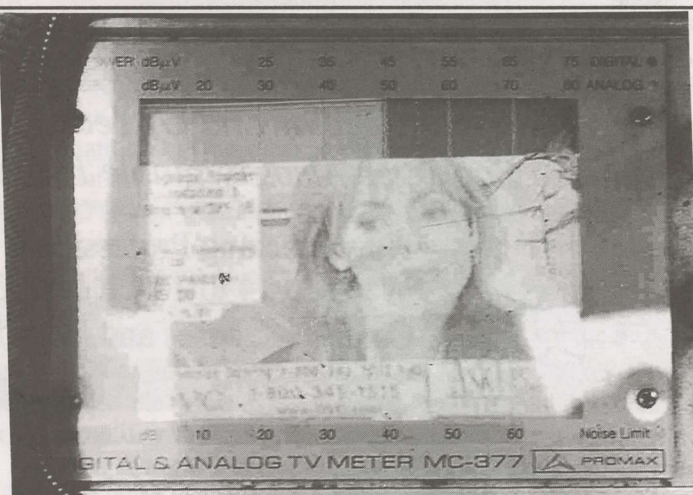
Cable service amounts to 12 channels for US\$30 a month, twice that for 30 channels. The channel list is impressive until you realise that more than 20 of these are on tape, two weeks old (or older) with commercials intact for various businesses and functions in the San Francisco Bay Area (of California). CNN is live (PAS-8), most others not. The "live" channels are a strange mixture of what is available (in many languages - including YTN Korea!) from I701, PAS-2 and PAS-8.

K11UU

Bill Hyman has lived on American Samoa for more than thirty years; he originally arrived on a mission of religious faith. He operates K11UU, a VHF band III ("11" in the American system) low power TV station which because of US rules is "must carry" on the cable system. This gets his service into the approximately 3,000 cable homes; there are virtually no OTA (over the air) viewers. K11UU is programmed with ABC Asia-Pacific taken from PAS-2, pre-recorded tapes from Hyman's Baha'i Faith Church, and during the Athens Olympics his channel was the *only* source for live Olympic coverage for the country. Bill is passionate about his one-man TV service, PCS-TV (the Pacific Channel Samoa), primarily because it provides a venue for public service and publicising the work and message of his faith. US\$15,000 here, another \$20,000 there - the money keeps going into PCS-TV (he operates a local island business



Kiwi built (Motueka) 7m dish imported to American Samoa has been through numerous cyclones (and one hurricane) - missing panels are not; mesh has replaced original storm damaged aluminium segments. We found several dozen strong USA boresight signals here during SatFACTS visit.



USA QVC (analogue) shopping channel on MC-377 meter directly under dish (bright sunlight mars image slightly).

full time as well) and he prays that one day the station will at least pay the monthly \$600 power bill. *But probably not soon.*

Athens Olympic Games. Because the local cabler has no direct live satellite connection to the USA's networks and must rely upon two-week old tapes, American Samoa was

JOYSAT



SIX Reasons to Choose a JOYSAT Mesh Dish !

Cost Effective, Economical

Heavy Duty Frame with Strong Mesh

Suitable for Windstorm areas

High Performance, High Gain

Both C and Ku Band: 2-13GHz

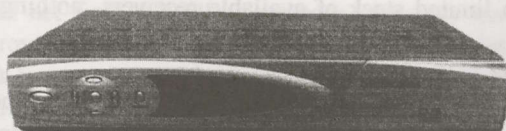
Choice of Colours: Black, Cream and Dark Green

And SEVEN More Reasons !

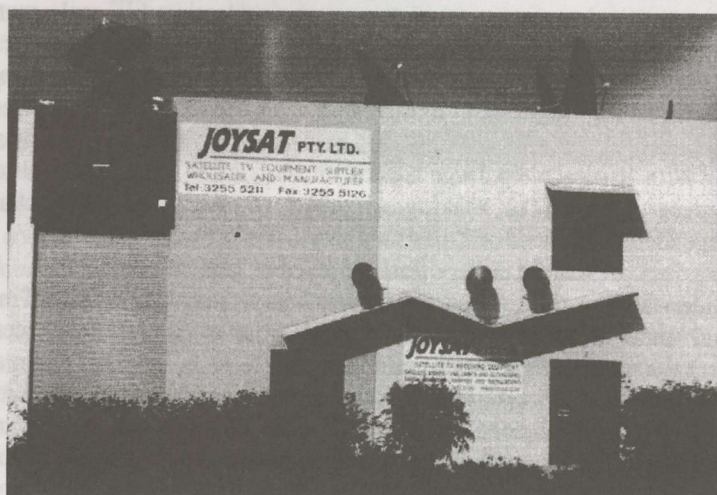
2.3m 3.07m 3.7m 4.5m 4.9m 6.1m 9.0m

Supermas

Digital Terrestrial Set-top Box



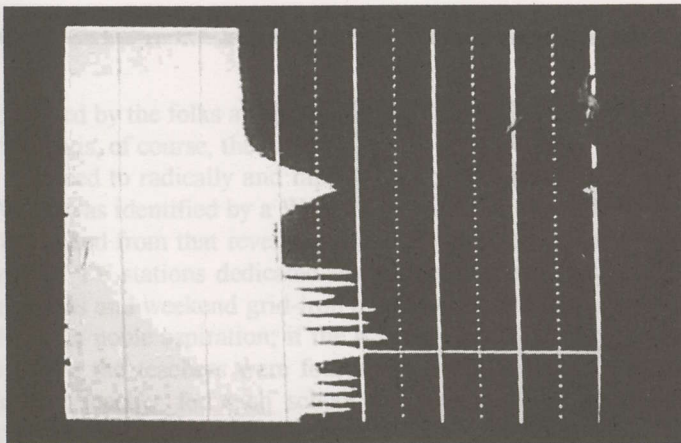
Teletext, EPG, Signal Strength Meter,
4.3/16.9 Signal Output, Sleep Timer,
Games, SCART, RCA and RF connections
and much more !



Telephone: 07 3255 5211 + Fax 07 3255 5126

<http://www.joysat.com>

email: info@joysat.com



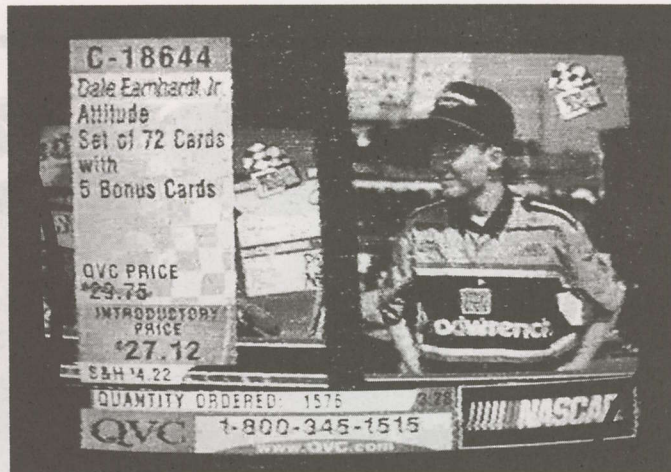
Hyman's spectrum analyser said he had up to 15 dB C/NR and he does, even on a dish that might do better with a "string tweaking." That's a "naughty signal" at top (shades of UNwired!) - and six 12 dB+ analogues along with 4 of lesser status (but still at or above the nominal 8 dB analogue threshold point); 10 transponders in all.

destined to be one of the few global spots where Olympic coverage would be confined to CNN sport highlights. Hyman wanted better for his community and aware that TVNZ was carrying several satellite feeds of the coverage, he contacted New Zealand for a quotation on charges if he was allowed access. TVNZ, in a benevolent mood, said they would unlock his TVNZ CA receiver for the Olympic period but the actual permission to carry the feeds would depend upon the Athens Olympic Committee. Dozens of Emails later, after being shifted from the Committee to NBC New York (the world rights holder) it came through. At manageable costs.

Simultaneously, he had gone to the Pago Pago business community at large asking for financial support - seeking ten to twenty firms at US\$500 each as "sponsors" for the 12-14 days of coverage still remaining. *One responded.* Not deterred, Hyman plugged his TVNZ satellite feed into the K11UU transmitter and American Samoa had their Athens connection. Which of course included the cable system which coincidentally had made no effort of their own to provide such a service. For commercial breaks, he ran a character generator announcement highlighting the *one* local business with the savvy to agree to support the effort, interspersed with announcements for the Baha'i Faith. And for 14 days he lived 13 hours offset from Athens making it possible for "his country" to be a witness to the event, neglecting his real business and family for that period of time. Yes, he is a passionate man dedicated to his vision that public service is not something to be taken lightly.

With several very large dishes on site, ACS - the cable system - should be making an effort to overcome their dependence on tapes sent in as air cargo. Unfortunately, there is a lack of insight here - possible even a lack of technical understanding that indeed American Samoa is within "LOS" and under suitable footprint coverage from at least four - perhaps more - US domestic satellites.

Our SatFACTS visit to Pago Pago was convincing - we sat under Hyman's ancient and kluged 7 meter dish and watched channel after channel from America parade by. Then we patched some cables together and retreated into a spare bedroom in his home, turned into a nightmarish video control centre for K11UU, and in slightly more comfort watched not only the free to air analogue signals displayed by his Promax



Analogue FTA service, with sparklies although in the 14 dB C/NR region, as processed by rather ancient "Uniden" rack mounting receiver that was a copy of the popular Winersat WR-100 series - less the adjustable bandwidth we so sorely needed to provide reference testing. See text.

MC-377 field meter but several which were encrypted and required a (USA) subscription (and special CA format analogue receiver).

Prior to our visit, Hyman had reported (SF#116, p. 15) measuring peak American analogue signal levels from 127W, 131W and other US birds in the 15 dB C/NR (carrier to noise ratio) region. "But," he noted, "there are sparklies." In an analogue system, sparklies are caused by noise either from within the system (such as a high noise LNB) or from without (such as local interference). Or, perhaps, his 377 meter was not telling the truth. So we had hauled along an Avcom PSA37D analyser through Fiji and (Western) Samoa as extra baggage with the aim of verifying the levels against his 377. For those who have joined us only after the digital revolution appeared (1998-2000), using a "decent" receiver, an analogue C/NR of 8 dB should be free of sparklies while one 12 dB or more should be so vivid that you can convince yourself you are sitting in a control room at the uplink site. Not so with Hyman's reception and we were determined to work out why.

The 377 was spot on - if anything it read a dB lower than the PSA37D. OK - these are "real" signal levels, so the culprit here must be noise. But from what?

Yes, we tried different LNBs including one Garry Cratt had airtailed to us in New Zealand just prior to the trip. No matter what we did, there were very modest differences and the sparklies persisted. Unfortunately, Hyman's stockpile of analogue receivers was minimal (we would have given our eye teeth for a Palcom 7900!) and in the last 8 hours we wrestled with his dish, changing feeds, LNBs and running through a limited stock of available receivers, nothing must changed.

Noise. It was pinpointed, finally, with the distant-help of Tim Alderman (California) and Garry Cratt in Sydney. It seems Hyman's receive site is within a mile of the Pago Pago International Airport and the place is laced with local and mid-ocean point 1,100-3,400 MHz pulse and full-on transmitters. One or more of these was strong enough to cause the LNB to overload from out-of-band saturation, a problem amplified by Hyman's modified J-pole feed support and the almost-at-the-airport 7m dish heading required for accessing the US satellite belt. One filter installed - clean signals would result.



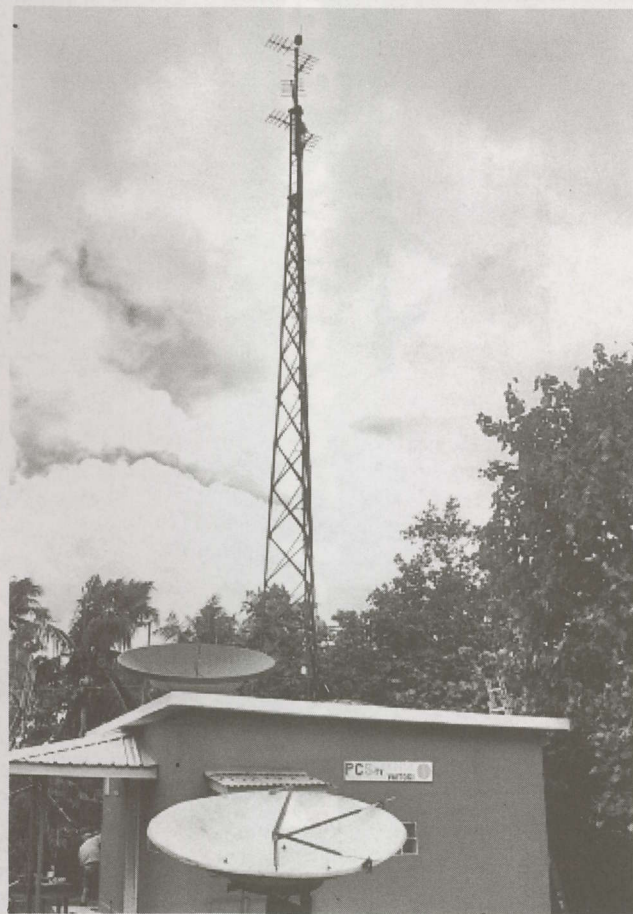
Analogue encrypted USA-direct movie channel service as received on Uniden FTA receiver (left). The frustrating part was not the encryption (see photo-right) but rather the "noise" appearing in the vertical sync bar (just left of centre) which our measurements said should be not there! Right - same signal decrypted with an "authorised" receiver *possibly* located at a not-in-Kansas postal-code.

Perhaps the cable company's limited technical skills can be excused as their site even with the monster 10m dishes would be no better off than Hyman's. That nobody had ever determined their actual useful-USA reception capability, identified the (airport) problem (assuming they got that far with their own tests) and found the correct solution, is not quite so excusable. That's OK - they can read about it *here* and then proceed to engage Hyman to make it work for them!

For Hyman, having access to a range of 20+ live-and-direct USA services may or may not ultimately benefit his operation of K11UU. Remember, his is an OTA service and while virtually nobody watches it OTA (depending upon his cable channel 11 dial position for reception), USA cable programmers available to K11UU via his 7m dish are going to have a difficult time coming to grips with what it is, what he does, not to speak of *where* he is! We discovered this while attempting to get one of his analogue CA receivers authorised. Page one of the receiver's manual (no - we are not going to identify which receiver nor which USA service!) plainly announced, "This device not to be exported from the USA." On the telephone to a programmer authorisation centre in the central USA, we began to answer their questions ("Where are you located? What is your mailing address? And your telephone number?"). "American Samoa" did not appear in their data base. "Sorry - you are not in the United States." Well, yes and no to that one. We tried Bill's postal zip (mail) code as an identifier; 96799. One programmer found it but said it was not on his approved list. Another could not find it at all - somebody obviously had edited the approved postal code list and "96799" was missing. OK - back to square one. Use a USA address and a USA zip code. Setting aside the subterfuge that may or may not be involved here, it worked. Pictures from a USA 24/7 movie service, approximately 4,000 miles south by west from San Diego. Are we "out of boresight?" If "boresight" is central Kansas (USA), by about 5,500 miles (akin to being in Bombay, India and watching Foxtel from C1). Stick that in your corporate ear Mr USA movie service operator.

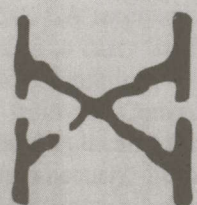
Where to - from here?

We came - we saw and now we believe. Actually, we "believed" *before* entering Bill Hyman's tropical garden loaded with satellite receiving dishes and a \$30,000 building

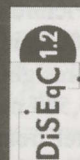
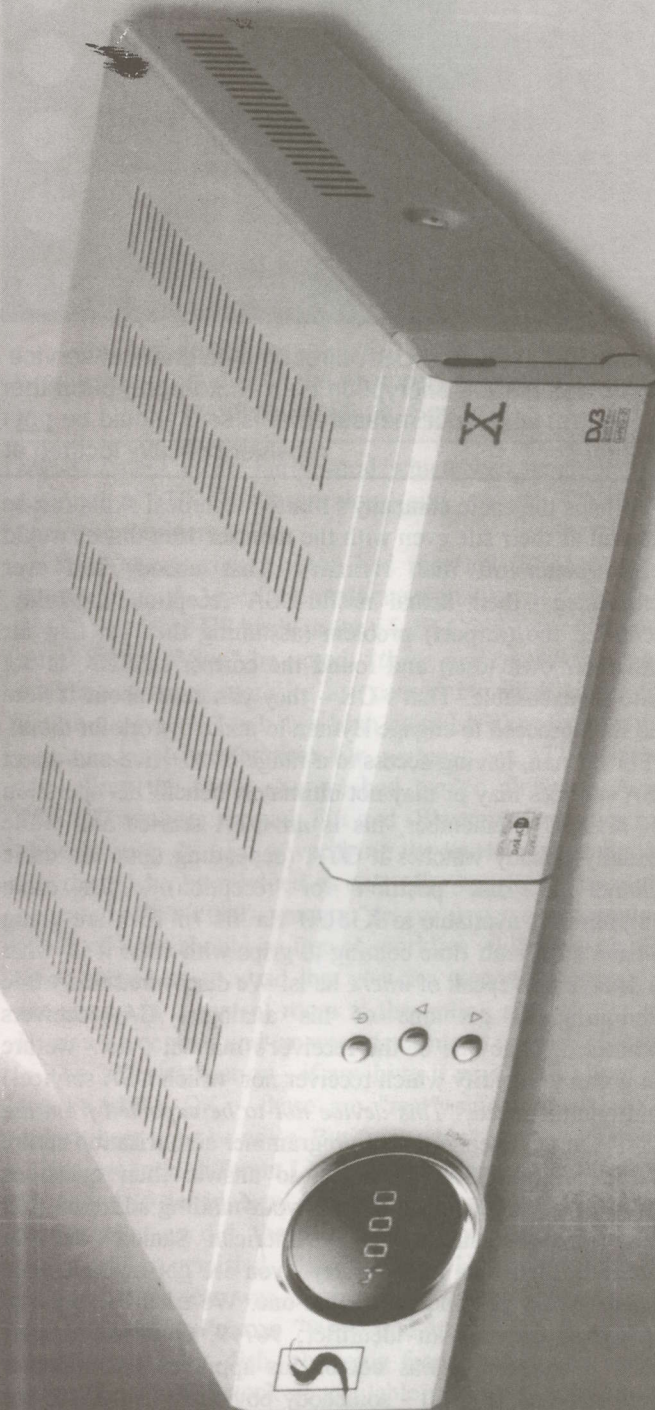
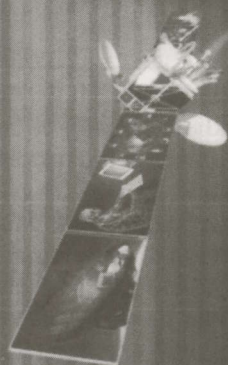


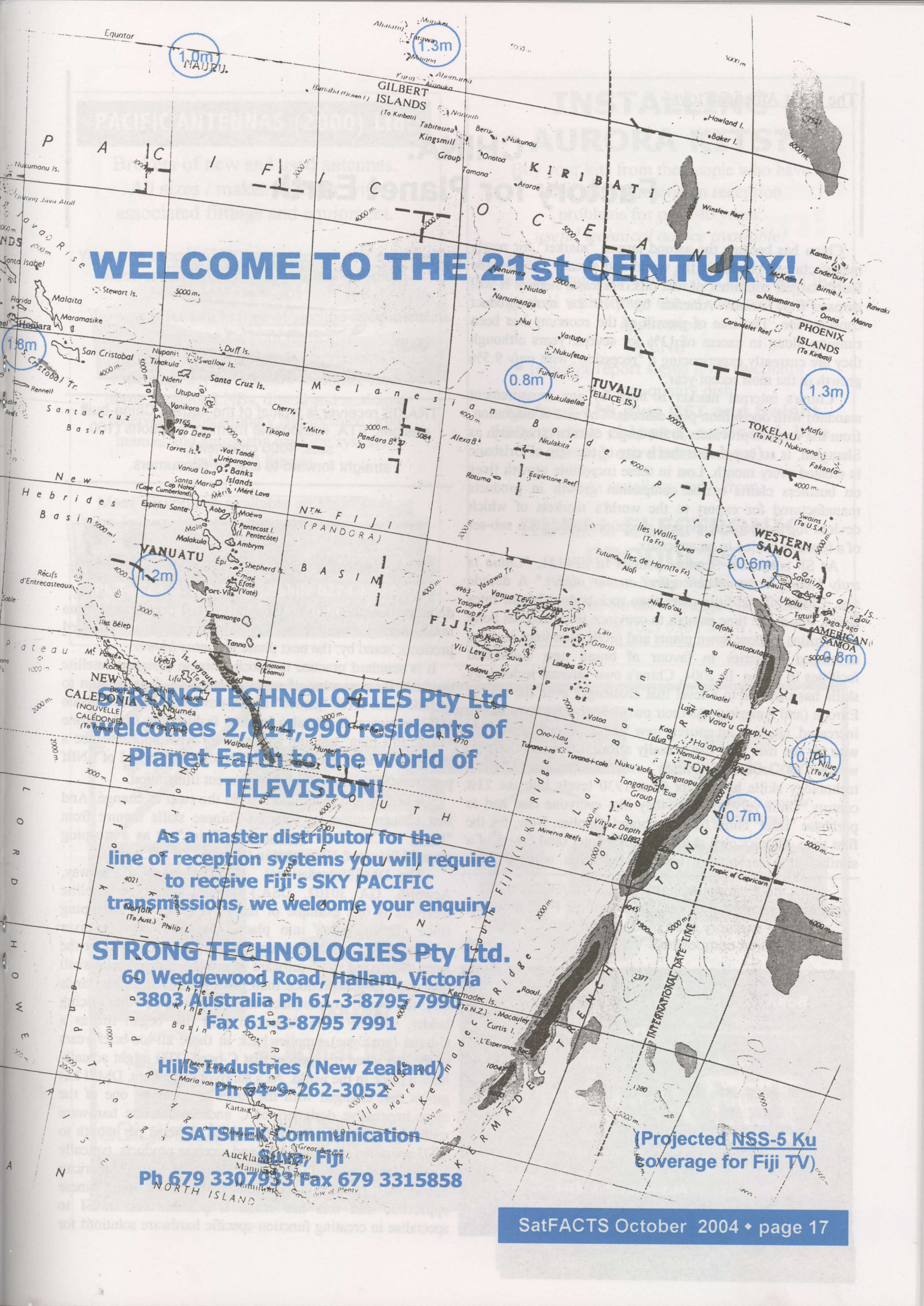
he built, from a bank loan, for PCS-TV. And now we understand "why" the sparklies. Fixable, of course (at this point a MFC \$500 filter is a drop in the bucket compared to Hyman's past expenditures).

Hyman is to be admired, congratulated, and if the locals had *any* sense of right and wrong, they'd erect a statute to him based solely on providing Athens Olympic coverage. They don't and won't, of course. But he will persevere and others further west (and Southwest) will one day take his findings and duplicate them in locations such as Tonga, Samoa, Fiji - and beyond. Anyone with a sense of technology and dedication can replicate his results - although having deep pockets won't hurt either!



Digital Satellite Receiver





WELCOME TO THE 21st CENTURY!

STRONG TECHNOLOGIES Pty Ltd
welcomes 2,144,990 residents of
Planet Earth to the world of
TELEVISION!

As a master distributor for the
line of reception systems you will require
to receive Fiji's SKY PACIFIC
transmissions, we welcome your enquiry

STRONG TECHNOLOGIES Pty Ltd.
60 Wedgewood Road, Hallam, Victoria
3803 Australia Ph 61-3-8795 7990
Fax 61-3-8795 7991

Hills Industries (New Zealand)
Ph 64-9-262-3052

SATSEK Communication
Auckland, New Zealand
Ph 679 3307933 Fax 679 3315858

(Projected **NSS-5 Ku**
coverage for Fiji TV)

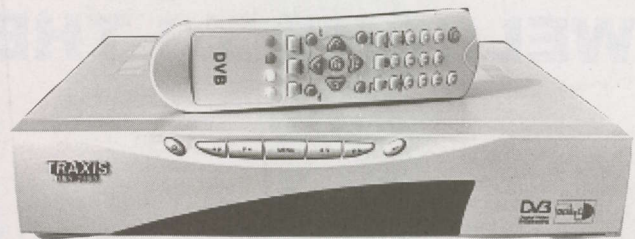
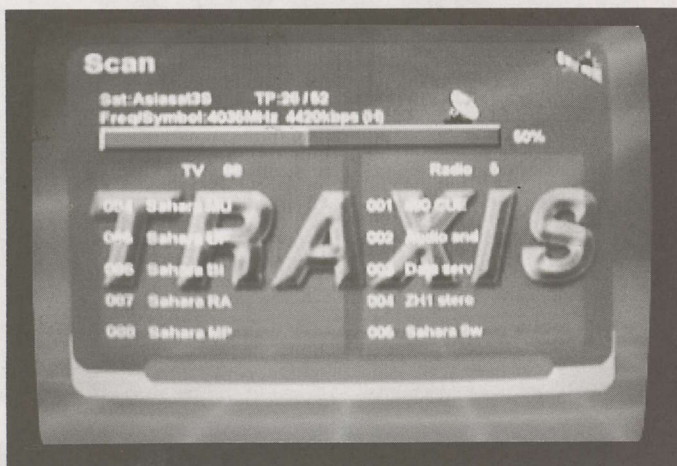
CHINA: Factory for Planet Earth

China has become the second largest "market" for newly manufactured vehicles in the world and already they are the fourth largest consumer of fuel oils. Forecasts suggest it will surpass front runner America by 2010 for most product consumption. The rate of growth of the economy has been running along in excess of 13% for several years although they are currently experiencing a "recession" with *only* 9.5% growth in the most recent year.

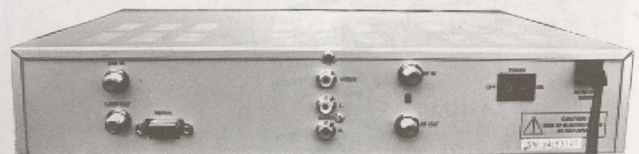
China's internal market is huge by any measurement standard with one-billion-plus citizens. The rate of migration, from the western provinces to the larger eastern cities such as Shanghai, is so impressive that a city of the size of Brisbane is created every month. Lost in these incredible growth lines on business charts is the companion growth in products manufactured for export to the world's markets of which devices for the home television reception market is a sub-set of a footnote buried in an appendix.

As SF columnist Scratchi penned in SF#121, "*China is truly having a remarkable affect on our planet.*" A decade ago, China offered little more than rock-bottom labour rates which was at the time enough to convince firms such as Sony and Philips to close down plants and production lines in more developed countries in favour of brand new automated facilities in China. In 2004, China's own internal technology skills has matured to a level that challenges even the best of Europe (and America). As their own labour rates have slowly increased, creating an entirely new "middle-class" of workers who for the first time can actually afford a television set, or, wonder of wonders - their own automobile, Chinese technology skills have leapt from 1930 levels into the 21st century. Until very recently, they like everyone else had to purchase "Intel" chips from the brand supplier. Now, for the first time, China's own skills will offer Intel (and others of a similar high technology level) competition with Chinese

TRAXIS features include NTSC/PAL/SECAM, video-action-pause, various LNB configs, PCR enter in manual + memory scan modes, and with SCART option composite/S-VHS and RGB.



TRAXIS receiver is typical of the current China-built designs. FTA, reasonable memory positions (100 sats, 4000 channels), straight forward to use for consumers.



developed devices. If you thought the last decade saw some mind-altering changes in the "Made in China" labelled products, stand by; the next phase is a *mind blower*.

It is standard practice to knock Chinese designed satellite products for a number of reasons including their passion to include idiot-level "games" as an unwanted "bonus" inside DTH receivers. It has also become fashionable to denigrate "Made in China" satellite hardware for what appears to be a lack of technical integrity - the "INOSHITU" brand of LNBf products (SF#120, p. 30) being a recent illustration.

All of this and much more is on the cusp of change. And that change comes as internal-Chinese skills mature from "Made in China" to "Invented in China" or as a stepping stone to invented, "Perfected in China."

The DMS International (320B Northpoint Parkway, Acworth, GA 30102, USA;) Traxis family of satellite receivers is one example of that "Perfected in..." stepping stone already going into place. The DBS-2500 receiver (shown above) is a modest device created largely to offer the latest "Perfected in..." software in a wrap-around metal shell that costs less to produce than prior art and therefore lands into the world marketplace at the bottom of the pricing ladder. DMSI is an American firm that began life as a C-band (analogue) supplier back in those all-too-brief years in the 80s when it appeared that C-band DTH might actually have a place in the world. As a survivor of that era, DMSI has grown and changed with the times to today be one of the more impressive designers of C and Ku satellite hardware routinely supplying tens of thousands of items per month to DTH operators (such as LNBf and receiver products, typically 'private-label-branded'). For the present, at least, "American know-how" remains a commodity that even the Chinese appreciate and this has made it possible for DMSI to specialise in creating function-specific hardware solutions for

PACIFIC ANTENNAS (2000) Ltd.

Brokers of new and used antennas.

All sizes / makes together with associated fittings and equipment.

Your one stop source for antennas and satellite electronics for the ENTIRE Pacific region.

We now offer a full range of satellite equipment designed for your particular personal or professional requirements.

Including: 2.4 to 13 metre antennas, feed horns, mounts, LNBs, digital and analogue receivers, geostationary and inclined orbit manual and automatic tracking systems, cable and fittings.

Most equipment available on short or long term leases. Hire Purchase (HP) also available.

PO Box 214, Silverdale, Auckland, NZ
Ph/Fax 64-9-426-2324; Mobile 0274 789 160
Email: pacant@clear.net.nz

INSTALLING AURORA KITS?

Buy your kits from the people who have been solving television reception problems for over 40 years;
useful technical advice available!

The deal

- Genuine Optus approved UEC Model 910 IRD packed with 4 page out-of-area reception application

- LNB

- Includes report signal level calculator
- 90cm quality dish

All for \$428 plus GST and freight (90cm dish shipped, enclosed, in a strong cardboard box).

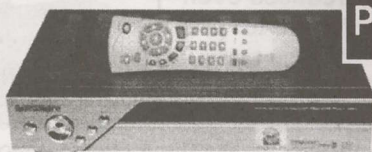
Trade installers, only, from:

RURAL ELECTRONIC PRODUCTS

"The Better Reception Centre"

315 Summer Street Orange NSW 2800
Phone (02) 6361 3636

For
SATFACTS
readers only



**FORTEC STAR 5100
PLUS +ULTRA \$399**

Email us at:

**sales@
aDigiLife.com**

Visit www.vetrun.com for
FTA special deals

**FOR
YOUR
DIGITAL
LIFE**

**FAST Blind Scan, UCAS
2 x CI Slots**

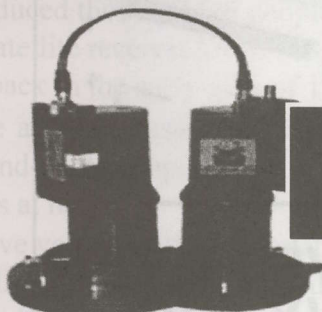
Buy
online

WWW.

aDigiLife.com



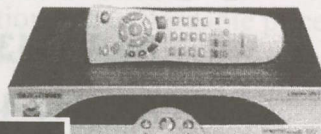
**Blind Scan Specialists
for the Dx'er**



**TWIN SCALAR
RING/LNBF \$99**

**DUAL SATELLITE
RECEPTION get Asiasat2
& Asiasat3 from the one
cable PLUS MORE**

**FORTEC STAR
LIFETIME ULTRA
FTA \$299**



**Fast Blind Scan,
UCAS embedded**

**PO Box 1026 Paradise Point QLD 4216 Australia
Ph: +61 7 55295683 Fax: +61 7 55296234**

Satellite Interference Filters

*Eliminate
out-of-band
interference at your
C-band
receive antenna!
Available for all
international bands.*

*Distributor
Inquiries
Welcome*



**MICROWAVE FILTER
COMPANY, INC.**

Tel 315-438-4700

FAX: 315-463-1467

E-Mail: mfcsales@microwavefilter.com

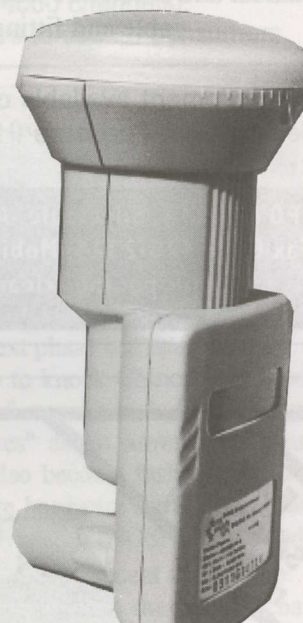
Web:

<http://www.microwavefilter.com>



LNB/LNBf products have reached a level of maturity dictated by practical limits to component parts (in particular the low noise transistors) - see letter, lower right p. 22; *advertising claims not to the contrary!*

LNB/LNBf case sizes have come down only as a result of "parts" coming "out" (see letter p. 22, upper left). If technology was able to create a "single chip solution," the overall LNB/LNBf case size would be reduced even further to "shot glass" dimensions.



a myriad of far-flung clients. Once a design is perfected and the client has "signed off," DMSI takes the ready-to-produce item to China where volume production is their strong suit.

How "small" can your volume be to take advantage of this "custom designing" skill followed up by Chinese volume production? Unusual products (such as H to H mounts and motor drives) incur higher per-item design costs because the volume tends to be low. More standard products such as LNBf for Ku or 950-2150 L-band digital receivers come out in such high volume numbers that per-item custom designing and engineering costs drop significantly - for example, a design fee of US\$0.20 per LNBf device when the volume is in the 10,000 and up class per month for say a year.

The trend, as Scratchi noted in September, "*is, thank-you China, towards cheap.*" Cheap today is largely the result of "nasty" - taking out two parts that perform one function and replacing them with a single part that does two functions. The trend over the next few years will slowly reverse, with the creation of entirely new families of component parts that do not two (or three) functions but rather dozens, all in a single shell. And the Chinese will lead this innovation.

SATELLITE & TERRESTRIAL TV SPECIALISTS

CONTACT US FOR OUR BRAND NEW CATALOGUE!

**WANT TO SEE THE LATEST? VISIT OUR WEBSITE
WWW.SATWORLD.COM.AU AND CLICK ON "WHAT'S NEW!"**

WHY USE SATWORLD?

- **FRIENDLY SERVICE**
- **BEST PRICES**
- **IMMEDIATE DELIVERY**
- **FULL RANGE**
- **ONLINE STORE**



SEE THE LATEST ON DISPLAY!

OPENTEL

eM Tech



SATWORLD
NOKIA CONNECTING PEOPLE eM Tech **DRAGON** **TOPFIELD** **HUMAX**



FACTORY 2/493 HAMMOND ROAD, DANDENONG, VICTORIA, AUSTRALIA, 3197

PH: 03 9768 2920 FAX: 03 9768 2921 E MAIL: sales@satworld.com.au WEBSITE: www.satworld.com.au

SATELLITE TV IS A GREAT HOBBY - Let's not forget that!

Since 1976 we've been involved in satellite TV. A hobby in those early days, our interest led to establishment of a business in 1981 that has introduced thousands of people to the exciting world of satellite TV. We produced our first international satellite receiver kit in 1986, and the first DIY home satellite system in Australia back in the early days of 1990.

Along the way we have found that above all else, customer support is critical. If you look around the industry, you'll soon sort out those vendors who operate on a strictly commercial basis, and, those who really have your real hobby interests at heart.

That's why we have made it our priority to give you all of the information to help you make your hobby a success. So if you are contemplating Satellite TV as a hobby, give us a call; we'll help get you off on the best track. Who knows - you might even become a part of this growing industry!! You can count on our decades of experience to provide you with the best "right" solution at an affordable price.

AV-COMM Pty Ltd

P.O. Box 225 Brookvale NSW 2100 AUSTRALIA

Tel 61-2-9939 4377 Fax 61-2-9939 4376 or, visit our website at

<http://www.avcomm.com.au>

Email cgarry@avcomm.com.au

You are welcome to also visit our showroom (24/9 Powell's Rd, Brookvale NSW),
join our E-mail newsletter service (addme@avcomm.com.au)

(Av-Comm Pty Ltd ACN 004 174 478)

TECHNICAL TOPIX

C-band terrestrial interference

"John V, SF#121, p. 4 is right - the best solution for TI is to keep it out of the antenna to begin with. In my past for a previous employer, I spent time running around Japan sorting out AsiaSat 2 reception problems. When the TI is operating 'in the band' (as in - the same frequency range you are trying to receive), (most) filters are about as useful as tits on a boar hog. In addition to the lack of margin to begin with (which becomes even *less* after the filter is installed), if one looks at the BER pre and post fitting of the filter, the BER drop is often not equivalent to the filter's insertion loss in dB. Can you say, 'Group Delay?' As for the concept that the LNB be redesigned to provide front end selectivity (p. 19), there is a well known LNB manufacturer here in Asia who used to have a product that had built up a venerable reputation in places where terrestrial C-band interference is prevalent. Sadly, that product was discontinued and an effort was subsequently made to return it to production. A stumbling block - the tooling for the case has been disposed of, otherwise this manufacturer was showing an interest in doing another run or two. The case tooling costs, I fear, make this a non-starter for anyone else. Thanks to the industry's focus on price, down-costing of LNBs required smaller cases (with less material in them), forcing the designers to remove as many 'unnecessary' components to show-horn in those that must be retained. There is nothing new here, USA electronic manufacturers went through the same thing back in the 80s. Unfortunately virtually everything is now done in this fashion."

BG, Hong Kong

Group delay is the uneven response which a filter introduces into the feed-LNB "line" of transmission. A filter adds Group Delay often independent of through-loss within the "pass" or "signal-go" band of coverage. Reputable manufacturers provide Group Delay specifications as a part of their product statement. BER is a measurement of error rates and is nominally directly related to the C/NR or carrier to system noise factor. One might suppose, incorrectly, that if the filter's through loss was 1 dB that the BER (error rate) would increase by an amount equivalent to a simplistic reduction in C/NR of 1 dB. Not so when Group Delay is added to the filter's through loss. It can be a confusing world for with a suitable spectrum analyser you can see (and measure) the filter's through loss leaving you to ponder why the BER "drop" is greater than it should be. A spectrum analyser cannot measure (or detect) Group Delay so you are chasing a "ghost." BG is, by the way, one of (if indeed not "the") very best FTA and CA receiver analysis engineer in the Asia-Pacific region. Asian manufacturers, system planners, could do far worse than contacting him for consulting assistance on those especially irksome projects (vr2bg@harts.org.uk). As for the sad news that TI-proof LNBs are in short supply and no longer manufactured - we can but hope a new Australia-NZ (see following report)

market as a result of the opening of 3.4-3.5 GHz for terrestrial transmissions will rekindle interest in this product. See swept frequency diagram, p. 30

Et tu New Zealand?

"The MED regulatory folks have announced a major effort to populate the 3.5 GHz region with terrestrial transmitters throughout New Zealand. Does this mean - as I fear - that the C-band problems with the UNwired network reported by SF#121 is about to hit New Zealand as well?"

Craig Sutton, NZ

Sadly, the plague is already in New Zealand (although we have yet to experience it or receive reports of interference). The NZ Government initiative to make broadband available to rural areas (named "PROBE" by the Government spinmasters) allowed BCL, Whoosh and others to acquire 3.5 GHz frequency range terrestrial licenses back in 2002. A 3.5 GHz transmitter site is already located on the downtown Auckland 'Sky Tower' for the firm operating as 'Whoosh', and south of Auckland, 'Counties Power' has 3.5 GHz running. Government data reports, "A single license in one spectrum block could provide for some 50 or more simultaneous users of approximately 100 kbit/s capacity for a population of approximately 500 customers." Of course 100 kbit/s is hardly 'broadband' (full motion glitch free video requires something greater than 250 kbit/s although *that* bandwidth number is going down monthly as new compression algorithms come on line) but if the user is stuck with copper wire 30 kbit/s or worse (many are much worse), 100 seems like Mecca. Licenses granted (by auction-sale) for geographic areas (defined by Government) are in 7 MHz bandwidth 'pairs' (9 total pairs initially) spread between 3.4 and 3.6 GHz (thus 3.5 GHz is in the middle of the range). The licences are for 20 year terms and the next (non-PROBE class) allocations will be conducted as auction sales "early in 2005." Details are available at <http://www.med.govt.nz/rsm/spp/fixed-wireless-access/allocation-plan/index.html>. The "3.5 GHz" terrestrial transmitters should be VERY evident on a spectrum analyser as they will be below the normal 3.7 GHz lower frequency point for normal New Zealand satellite reception, and likely, VERY strong (as compared to nominal C-band satellite signals).

Ku LNB Noise Figure - put it to bed!

"Reference ongoing discussions concerning lower and lower Ku band noise figure claims for LNB/LNBf products. I went to our Japanese transistor source and he tells me, 'State of the art is 0.5 dB noise figure for the very best of the best transistors produced.' That is for the transistor *alone*; when you add circuitry around it, the noise figure goes up. Which of course means there is no way on earth to have a 'real' 0.5 dB noise figure Ku band LNB(f)- let alone 0.3 dB being claimed - even if you hand pick the very best transistors. End of discussion?"

Tim Heinrichs, DMS International, USA

Alas, we fear not the end of 0.3/0.4/0.5 dB advertising!

SatFACTS Pacific/Asian MPEG-2 Digital Watch: 15 OCT, 2004

Bird	Service	RF/IF &Polarity	# Program Channels	FEC	Msym
Thom3/78.5	SkyChAust	3695/1455H	up to 3	3/4	5(.000)
	ANT Greece	3672/1478H	1 TV	3/4	13(.333)
	Korean Central	3665/1485H	1	2/3	3(.367)
	TARBS ME mux	3640/1510H	12TV, 12 radio	2/3	28(.066)
	Ch Nepal	3626/1524V	1	3/4	15(.556)
	Mahar mux	3600/1550H	11TV, 1 rad	3/4	26(.667)
	SE asia Mux	3569/1581H	2+ TV	3/4	12(.500)
	RR Sat mux	3551/1600H	8TV, 10 radio	3/4	13(.333)
	JAIN TV	3538/1612V	1TV	3/4	3(.300)
	PTV1+	3521/1629V	1TV, 1 radio	3/4	3(.333)
	FTA Mux	3520/1630H	12TV, 12 radio	3/4	29(.800)
	KTN plus	3500/1650H	2+ TV	3/4	26(.667)
	TVK Cambodia	3448/1702H	1TV	1/2	6(.312)
	TARBS/Th5	3480/1670H	12 TV+radio	2/3	26(.667)
	KCTV/Korea	3424/1726H	1TV	3/4	3(.366)
	Thai Global	3425/1725V	up to 7?	2/3	27(.500)
InSat 2E/83	ETV mux	4005/1145V	6+ TV	3/4	27(.000)
	Hyd Dig 2E	3910/1240V	1	3/4	5(.000)
	Kairali TV	3699/1451V	1	3/4	3(.184)
	Indian mux	3643/1507V	3	3/4	19(.531)
	ETV Mux#2	3485/1665V	4+TV	3/4	27(.000)
	Sky Bangla	3430/1720V	1TV	3/4	6(.000)
NSS6/95E	Ant Pac (Greek)	11.083H-Australia	1 TV	3/4	2(.171)
	TVR Int	11.106H-Australia	1TV	3/4	3(.255)
	Free-X TV, plus	12.729V-Australia	5+TV	7/8	27(.500)
As2/100.5E	Guangdong TV	4075/1075H	1TV + radio	3/4	6(.000)
	Euro Bougt	4000/1150H	6TV, 21r	3/4	28(.125)
	Reuters News	3905/1245H	1TV	3/4	4(.000)
	WorldNet	3880/1270H	4+/28radio	1/2	20(.400)
	APTN Asia	3799/1351H	1	3/4	5(.632)
	Reuters/Sing.	3775/1375H	1	3/4	5(.631)
As2/100.5E	Macau MUX	4148/1002V	5TV	3/4	11(.850)
	Feeds	4086/1064V	1	3/4	5(.632)
	Dubai MUX	4020/11430V	4+, radio	3/4	27(.500)
	Fashion TV	3795/1355V	1	3/4	2(.626)
	3-ch miniMUX	3752/1398V	up to 3	3/4	5(.640)
	Saudi TV1	3660/1490V	7+/tests	3/4	27(.500)
As3S/105.5E	Telstra I-Net	12.596V	no TV	5/6	30(.000)
	RR Mux	3669/1481V	up to 5 TV	3/4	13(.333)
	Zee bouquet	3700/1450V	10TV	3/4	27(.500)
	Ch News Asia	3706/1444H	1TV (+)	3/4	6(.000)
	BTW World	3725/1425V	1TV	3/4	4(.450)
	SAB TV	3743/2407V	1TV	3/4	3(.300)
	Arirang TV	3755/1395V	1	7/8	4(.418)
	Now TV +	3760/1390H	up to 8TV	7/8	26(.000)
	Star TV	3780/1370V	7(+)/TV	3/4	28(.100)
	GXTV	3806/1344V	1TV + 3 radio	3/4	4(.420)
	Shaanxi TV	3813/1337V	1TV + 2 radio	3/4	4(.420)
	Anhui TV	3820/1330V	1TV + 2 radio	3/4	4(.420)
	Jiangsu TV	3827/1330V	1TV + 2 radio	3/4	4(.420)
	HLITV	3834/1316V	1TV	3/4	4(.420)
	Star TV	3840/1310H	7(+)/TV	7/8	26(.850)
	Star TV	3860/1290V	5(+)/TV	3/4	27(.500)
	Abu Dhabi MUX	3880/1270H	8+TV, 10Radio	3/4	27(.500)
	Dragon TV	3886/1264V	1 TV	3/4	4(.800)
	Shandong	3895/1255V	1TV + 6 radio	3/4	6(.813)
	Jilin TV	3914/1236V	1TV + 1 radio	3/4	4(.420)
	Star TV	3920/1230H	4+ TV	7/8	26(.850)
	Star TV	3940/1210V	6(+)/TV	7/8	26(.850)
	CNN	3960/1190H	8(+)/TV	3/4	27(.500)
	Star TV	3980/1170V	6+TV	3/4	28(.100)
	Star TV	4000/1150H	8(+)/TV	7/8	26(.850)
	Sahara digital	4020/1130V	8TV	3/4	27(.250)
	Hubei TV	4035/1115H	1TV + 2 radio	3/4	4(.420)
	Sichuan TV	4051/1099H	1TV + 1 radio	3/4	4(.420)
	Qinghai TV	4067/1083H	1TV + 2 radio	3/4	4(.420)
	Hunan TV	4082/1068H	1TV + 1 radio	3/4	4(.420)
	Pakistani TV	4091/1059V	5TV, 1 radio	3/4	13(.333)
	Sun TV	4095/1055H	1	3/4	5(.554)
	TVB8 Mux	4110/1040H	3	3/4	13(.650)
	Indus News	4115/1035V	1	3/4	3(.222)
	CCTV bqt	4129/1021H	4(+)/TV	3/4	13(.240)
	Zee Bqt #2	4140/1010V	8(+)/TV	3/4	27(.500)
	Henan TV	4166/984V	1TV + 4 radio	3/4	4(.420)
	Fujian TV	4180/970V	1TV + 2 radio	3/4	4(.420)
	Jiangxi TV	4187/963V	1TV + 2 radio	3/4	4(.420)
	Liaoning TV	4194/956V	1TV + 2 radio	3/4	4(.420)
Cak1/107.5	Indovision (S-band)	2.535, 2.565, 2.595, 2.625, 2.655	33(+)/TV	7/8	20(.000)
T Kom/108E	IndoBqt	3460/1690H	up to 6	3/4	28(.000)
C2M/113E	TPI	4185/965V	1	3/4	6(.700)
	TVE Asia-Africa	4160/990H	1	3/4	5(.632)
	Anteve	4144/1006V	1	3/4	6(.510)
	Kabelvision Mux	4080/1070H	7+ TV	7/8	28(.125)
	Indostar	4074/1076V	1	3/4	6(.500)
	SCTV	4048/1102V	1	3/4	6(.618)
	Indonesian Mux	4000/1250H	6+ TV	3/4	26(.085)
	Satelindo	3935/1215H	1	3/4	6(.700)

Receivers and Errata

CA (#1, 3); FTA audio #2 (dm)
Late July 04: room for more (FTA)
Global footprint; changes 02/03.
CA + 2 FTA(A1TV, IRB3)
New 03/03; FTA
Thai + Indian services; FTA
MRTV3, MRTV (DM)
3TV, 5radio inc. Hellas TV Greece FTA
PIDs 4132/4133
frequency change
Aug 04: 5TV, 1 ra FTA (India)
Irdeto 2, apparently SE Asia based (08-04)
FTA
3FTA: TV5, VTV4, ATN Bangla
Not 24 hour; FTA?
FTA (reaches SE Australia)
Several ETV now here; wide beam
SCPC, OK E. Aust. wide beam
SCPC, OK E. Aust wide beam
corrections 12/02
Several new ETV here; Asia beam
New - November 2002
(still) FTA 09-04
(still) FTA 09-04
Require authorisation: sales@bluekiss.biz, some fla
July 04: FTA
FTA TV + radio; TV5 Asia moved "down" April
Was 3923H; sometimes FTA
FTA; multiple audio services V2360, A2320
Sometimes FTA; also 3895Vt
FTA & CA
5 chs TV, FTA, some tests
FTA SCPC feeds
FTA, EuroSport PID change (1213/1313) June
FTA as of May 1, 2003
Sun-TV, Surya TV, KTV (FTA)
FTA MCPC; Yemen, MBC EUROsport tests
Signal useful for dish testing - no TV
Bluekiss adult here; CA cards sales@bluekiss.biz
Mediaguard + Conax CA; 2 occ FTA
New September 2003; English + V1160, A1120
Bangladesh TV FTA started early March 2004

FTA SCPC; New PIDs V3601, A3606 June 2003
CA + NOW, B'berg, Indus Music, MTA FTA
NDS CA (Pace DVS211, Zenith)
Guangxi TV; was As2
Was As2
Was As2
Was As2
Was As2; HeiLong
NDS CA (Pace DVS211, Zenith)
NDS CA (Pace DVS211, Zenith)
New April 2004: link to Optus B3 Globecast
Shanghai
Apparently Mongolia; was As2
Was As2
Star Sports Asia (+), FTA NTSC; V512, A640 English
NDS CA as above; may NOT be operational
PowVu CA; new SR Apr 29; CNN radio FTA
NDS CA; Star News India FTA VPID 514, APID 648
NDS CA w/ 4(Chinese) FTA
New Sr September
Was As2
Was As2
Was As2
Was As2
new Sr, channels, Nov 2003
"History Channel" - SCPC
MATV Chinese movies FTA +CA; new Sr 05-04
Hindi (+ "Plus")
moved from 4115
Mediaguard (SECA) CA
Was As2
Was As2
Was As2
Was As2
NDS CA using RCA/Thomson,
Pace IRDs; 2.535 has 2 FTA
also 3586H/17.500, 3496H/19.615
FTA SCPCA; NT/NC only
New August 2003
change from 4055V; FTA SCPC
also try 3500H, 27.000, 3/4; strong NZ
FTA (new 06-03); V2201, A2202
FTA SCPC; NT, New Caledonia only
unstable platform - not always there
test card - only - reported

Bird	Service	RF/IF & Polarity	# Program Channels	FEC	Msym
	Brunel/Sing	3733/1417H	1TV	3/4	6(,000)
	RCTI	3473/1677H	2	3/4	8(,000)
As4/122E	Aust DTH test?	12.333H	1	3/4	5(,878)
	CCTV internal	4020/1130V	6	3/4	27(,500)
	CCTV internal	4100/1050V	6	3/4	27(,500)
	Tests	3733/1417H	2 TV	3/4	5(,789)
Jc3/128	Miracle Net	3996/1154V	3 up to 6	5/6	22(,000)
	Asian bqt	3960/1190V	up to 8	7/8	30(,000)
ApS138	Tests	3866/1284H	1		3(,355)
Jc2A 154	BYU-TV	3915/1245V	1+languages	3/4	4(,166)
MeasSs2	Astro Mux	11.602H	up to 17TV	3/4	41(,500)
	VTM MUX	11.522V	3 TV	3/4	9(,766)
B3/152	Optus tests	12.407V	4 TV, 10 radio	2/3	30(,000)
	Occ feeds	12.440H	1TV	3/4	6(,666)
	Occ feeds	12.450H	1TV	3/4	6(,666)
	unknown	12.501H	no svcs	7/8	30(,000)
	Globecast 2	12.525V	10 TV, 7 radio	2/3	30(,000)
	Globecast (feeds)	12.550-.555V	1TV	3/4	6(,110/.670)
	Sydney Racing	12.563H	1TV	2/3	30(,000)
	Globecast 1	12.657V	14TV, 15 radio	2/3	30(,000)
	UBI	12.613/12.640H	+/- 10TV each	3/4	22(,500)
	UBI	12.674/12.701H	+/- 10TV each	3/4	27(,500)
	WA ABC	12.702V	1 TV, 1 radio	7/8	14(,288)
	WA SBS	12.720V	4TV, 2 radio	5/6	12(,600)
	WA GWN/WIN	12.738V	2TV	7/8	14(,295)
C1/156E	Optus test bed	12.325V/1U	(empty)	1/2 (*)	24(,444*)
	Pay TV	12.365V/T2	11TV, 2 radio	3/4	27(,800)
	Aurora Home	12.407V/T3	5 TV, 13 radio	2/3	30(,000)
	Pay-TV	12.447V/T4	5TV, 4 data	3/4	27(,800)
	Pay TV (test)	12.487V/T5	3 TV	3/4	27(,800)
	Aurora 2	12.527V/T6	7TV, 20 radio	3/4	30(,000)
	Pay-TV	12.567V/T7	10 TV	3/4	27(,800)
	Pay-TV	12.607V/T8	10 TV	3/4	27(,800)
	Pay-TV	12.647V/T9	10 TV	3/4	27(,800)
	Austar	12.305H/T11	6TV, 24 data	3/4	30(,000)
	Pay-TV	12.358H/T12	10 TV	3/4	27(,800)
	Pay-TV	12.398H/T13	10 TV	3/4	27(,800)
	Pay-TV	12.438H/T14	6TV, 3 data	3/4	27(,800)
	Pay-TV	12.478H/T15	10 TV	3/4	27(,800)
	Pay-TV	12.518H/T16	10 TV	3/4	27(,800)
	Pay-TV	12.558H/T17	10 TV	3/4	27(,800)
	Pay-TV	12.638H/T19	9TV, 30 radio	3/4	27(,800)
	Pay TV	12.688H/T20	11TV	3/4	27(,800)
B1/160	Occ. feeds	12.380H	1 TV - *	3/4	6(,111)
	Occ. feeds	12.384V	1 TV - *	3/4	6(,111)
	Net 7 service	12.397H	1	3/4	7(,200)
	Net Ten	12.353H	1TV + 1 radio	3/4	5(,100)
	Imparja mx	12.379H	2TV + 8 radio	3/4	5(,424)
	7 digital feeds	12.397H	1TV	3/4	7(,200)
	Feeds to NZ	12.411V	1 TV	3/4	6(,111)
	SBS Mux	12.420H	3+ TV, 2+ radio	5/6	12(,600)
	TVNZ DTH	12.456V	5+TV	3/4	22(,500)
	Nine Net	12.512H	1 TV typ.	3/4	5(,632)
	Sky NZ	12.519/546V	7TV/7TV	3/4	22(,500)
	Sky NZ	12.581/608V	6TV/6TV	3/4	22(,500)
	Sky NZ	12.644/671V	9TV	3/4	22(,500)
	ABC HDTV	12.603H	5TV	7/8	14(,300)
	Sky NZ	12.707/733V	8+TV	3/4	22(,500)
	Mix 106.3	12.574H	1 radio + data	3/4	1(,851)
P8/169	ABS-CBN	12.575H	4+TV, 4+ radio	2/3	13(,845)
	JEDI/TVB	12.686H	11+ TV	3/4	28(,126)
	ABC A-P	4180/970H	2TV, 2 radio	3/4	27(,500)
	Disney Pac	4140/1010H	typ 6 TV	5/6	28(,125)
	Taiwanese MUX	4080/1070H	12+ TV	5/6	30(,000)
	NHK Joho	4060/1090H	7TV, 1 radio	3/4	26(,470)
	FOX Mux	4040/1110V	up to 5TV	7/8	26(,470)
	NET +	4121/1029V	1 TV	3/4	4(,774)
	ESPN USA	4020/1130H	8+TV, data	3/4	26(,470)
	Discovery	3980/1170H	8 typ.	3/4	27(,690)
	CalBqt/Pas8	3940/1210H	up to 3+ FTA	7/8	27(,690)
	CNBC HK	3900/1250H	up to 7TV	3/4	27(,500)
	FilipinoMUX	3880/1270V	up to 8TV+radio	5/6	28(,694)
	TaiwanBqt	3860/1290H	12TV + 30 r	5/6	28(,000)
	CCTV Mux	3829/1321H	up to 4 + 1 radio	3/4	13(,240)
	TVBS-N	3836/1314V	1FTA, 4+ CA	3/4	22(,000)
	EMTV PNG	3808/1342V	1 + 2 radio	3/4	5(,632)
	CNNI	3780/1370H	3, up to 5 TV	3/4	25(,000)
	Discovery Asia	3764/1386V	Up to 6 TV	3/4	19(,850)
	MTV	3740/1410H	8	2/3	27(,500)
P2/169E	WA Mux Pv	12.281V	3+ TV, radio	2/3	27(,500)
	Ariang TV	12.401V	1TV	3/4	4(,400)
	ABS-CBN	12.575H	4TV, 2 radio		13(,845)
	NBN	4126/1024V	1TV	3/4	3(,075)
	TARBS feeds	4090V/1060V	9TV + radio	3/4	21(,000)
	Feeds	4027/1123H	1+TV	2/3	6(,620)
	Middle East	3836/1314V	4 typ	3/4	13(,331)
	Feeds	3803/1347V	1	3/4	6(,000)
	PAS/BBC mux	3744/1406V	3	3/4	21(,500)

Receivers and Errata

FTA ; Singapore 23hrs, Brunei 1 hr, Brunei V1200
 FTA SCPC; Australia, New Caledonia, some English
 Unknown source, believed to be Sydney (08-04)
 New Aug '04; Irdeto 2
 New Aug '04; Irdeto 2 + **TVSN occ. FTA**
 Tests: erratic service
 PowerVu; some FTA (Ch. 1 & 3)
 CA & FTA NTSC: Japan, Taiwan
 3759/Sr24.843, 3786/Sr5.000, 3846H/Sr4.292 (NZ)
 Erratic service; strong NZ & Australia
 Aust East beam - 3 FTA + 14 CA
 WA only? Skew path, intended Asia
 differs from 12.407 C1; **tune ch FTA; NZ+Au**
 Net 10, V8 racing
 Big Pond; V8 racing
 GlobeCast, NZ + Au (now PowVu capable)
 varies from unmodulated to several test channels
 occ feeds, NZ + Au
 Competitor to TAB; continues FTA (10-04)
 NZ + Au (Mcrypt, PowVu capable)
 Ex TARBS testing, retrying to restart! (10-04)
 Ex TARBS testing; trying to restart! (10-04)
 ABC WA tests, FTA
 SBS, radio tests WA FTA
 Irdeto V2 CA, tests (GWN, WIN)
 new #s 09-04; * may be temporary numbers
 Tests: **SBS, GOD FTA 01-10-04**
 NZ (90cm) + Australia (**Only svc left on NZ; C1**)
 Australia NA only (leakage to Norfolk, New Cal)
 Australia NA only (leakage); 9-Net x 3 widescreen
 Arrow radio, tone FTA
 Pay-per-view movies; CA
 Pay-per-view movies; CA
 Pay-per-view movies; CA
 Austar inter; Expo FTA
 NDS CA + Mcrypt; CA
 CA, subscriptions available Australia, Norfolk
 Sky News active; "Help" FTA
 CA, subscriptions available Australia, Norfolk
 CA, subscriptions available Australia, Norfolk
 "Home" CA, subscription available Australia, Nrlfk
 CA, subscription available Australia, Norfolk
 CA, subscription available Australia, Norfolk
 * - plus 12.451H, 12.460H
 * - plus 12.293V, 12.402V, 12.411V
 Full schedule less commercials - links; may be CA
 Possibly feed to Tasmania?
 PIDs vary; also try 12.360, 12.370
 occ. digital feeds; typ fta
 Often NTSC; USA-Australia-NZ
 Also 12.420H same params; SBS HDTV + w-s
 FTA 4 channels (TVNZ x 4); +Maori here
 testing digital feeds; Sr may vary
 NDS CA, subscription available NZ
 NDS CA, subscription available NZ
 NDS CA, subscription available NZ
 also 12.626, 643, 670, 688, & 706H
 NDS CA, subscriptions available NZ
 Radio SCPC is "cover" for high speed data
 FTA, plans CA "soon"
 June 2002-Irdeto-2 CA
 Dateline west; also east PAS2, 3901V
 PowVu CA
 Tests - CA service announced
 PowVu CA & FTA; subscription available
 was PAS-2, previously 3992Vt; **feeds FTA**
 NET25 + FTA; new PIDS April '03; reload
 PowVu CA; ch 11 DCP-CCP bootload; **audio FTA**
 PowVu/CA (some audio FTA)
 PowVu CA & FTA (EWIN +)
 NDS CA (6 channels); one test card FTA
Myx FTA V1960, A1920 + radio FTA
 Mixed FTA & CA; STC gone (CA)
 PowVu FTA, replaces PAS-2 svc
 Difficult because of CCTV cross pole
 was As2; PowVu CA
 PowerVu; some audio FTA
 PowerVu; Asian MUX; new parameters Nov '03
 # 8 **MTV China FTA V289, A290**; rest CA
 PowVu CA, WIN, ABC NT, SBS; status unknown
 Test - may not stay permanently
 Temp FTA; will be CA, subs 011-800-2270-0722
 May not be permanent; not available to NZ
 Occ FTA (Chile +); BIG power reduction Nov 03
 Sporting feeds from USA (occasional)
Irdeto 2 CA - subscriptions avail; Strong Tech
 PowVu (FTA) occ sport feeds inc. Japan BB
BBC, test card FTA, others nominally CA

homecast eM200



Digital Satellite Receiver with 2 x CI slots.
and IrDeto 2.09 CI cam.

SATELLITE

homecast eM320PVR



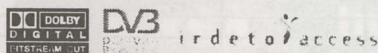
Satellite Receiver with Dual Tuner, firewire,
and 44 hours recording with IrDeto 2.09 CI cam.

homecast eM300PVR

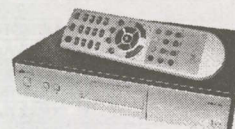


Satellite Receiver with CI slots & 22 hours
recording with IrDeto 2.09 CI cam.

homecast eM150IR



Compact embedded IrDeto
Satellite receiver with 1 card slot.

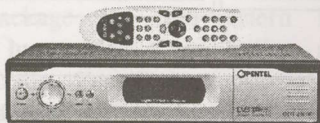


All the above receivers are suitable for receiving the IrDeto encrypted KU
programming from **NSS6 satellite** with the appropriate authorized smart card.

OPENTEL Digital Terrestrial Receivers

ODT3000F

Standard definition,
High quality. Full
Featured including, RF modulator, S-Video
out, Wide button, 8 favourite groups, SPDIF
out, Competitive pricing.



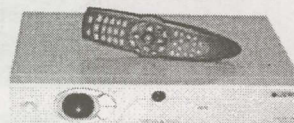
Call for wholesale bulk pricing.



NEW! ODT4200PVR

80G PVR with Twin Tuners!

SD with 40 hours recording.
Record one channel while
Watching another, Play a recording while recording
a channel, 4 week event timer, 8 favourite groups,
trick play forward & backward 1/2x, 2x, 4x, 8x & 16x
speeds, Mark A&B points on your recording, Jump
to any point in your recording. **Order Now!**



MELBOURNE SATELLITES SINCE 1992

ABN: 51 477 349 864 ACN: 065 270 733

Suppliers of ALL Major Brands:



MICROELECTRONICS TECHNOLOGY INC.



New Range of Heavy Duty Mesh,
2.3 & 3.0mtr Satellite Antennas

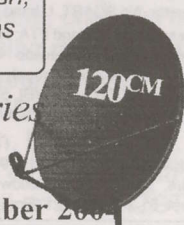
Please Phone, Fax or Email your enquiries
to Kevin, Marcus, Linda, Mick or Tony

NEW STOCK Azure 120cm available September 2004

MOTORISE
YOUR ANTENNA



120CM



We have finally moved into our new Office / Warehouse

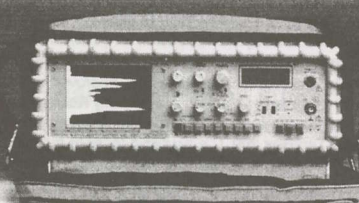
Showroom:
21 Turbo Drive,
BAYSWATER VIC 3153

Postal:
P.O.Box 901
BAYSWATER VIC 3153

Tel: 61 3 9738 0888 Web: www.melbournesatellites.com.au
Fax: 61 3 9738 0001 Email: sales@melbournesatellites.com.au

GET THE REAL THING,

Ask us about the Promax Family of
Professional Field Strength Meters



Bird	Service	RF/IF & Polarity	# Program Channels	FEC	Msym
(PAS2/169E)	Adventists.tv	4040/1010H	1	2/3	5(900)
	Feeds	3868/1182H	1	2/3	6(620)
	Feeds	3939/1211H	2 (typ NTSC)	2/3	6(620)/7(498)
	Cal PowVu	3901/1249H	up to 8	3/4	30(800)
I804/174E	HK bouquet	3850/1300H	up to 8	2/3	24(900)
	Korean Bqt	3771/1379H	1	3/4	9(041)
	iPSTAR	12.619H	1	2/3	25(220)
	Tests-NZ beam	12.646H	1	3/4	22(418)
I701/180E	RFO Poly	4027/1123R	1TV	3/4	4(566)
	TNTV	11.060&11.514V	9	3/4	30(000)
	Fiji TV/Sky Pacific	11.074H	12 + 12 radio	1/2	43(600)
	Canal+Sat	11.610H	16TV, 1 radio	3/4	30(000)
	PBS	12.728H	16TV possible	3/4	28(066)
	TVNZ/BBC	4186/964RHC	1	3/4	5(632)
	TVNZ	4178/972RHC	1	3/4	5(632)
	AFRTS DTS	4175/975L	3 TV, 3 radio	2/3	3(680)
	TVNZ/Aptn	4170/980RHC	1	3/4	5(632)
	RFO-Canal+	4086/1064L	4TV, radio	5/6	12(041))
	TVNZ/feeds	4052/1098RHC	1	3/4	5(632)
	TVNZ feeds	4044/1106R	1	3/4	5(632)
	NZ Prime TV	4024/1126L	1	2/3	6(876)
	NBC to 7 Oz	3960/1190R	1	7/8	6(447)
	WorldNet	3886/1264R	1TV, 37 radio	3/4	25(000)
	Ioarana	3772/1378L	1	3/4	4(566)
	NASA TV	3854/1296R	1 TV	3/4	2(000)
	TVNZ	3846/1304R	1	3/4	5(632)
	NBA (Barker) Ch	3803/1347R	1	3/4	6(111)
	10 Australia	3769/1381R	4	7/8	20(000)
NSS-5/177W	USA feeds	3749/1401R	4?	?	26(400)
	Pacific IP Data	3745/1405R	none-date	?	44(995)
	iPSTAR Tests	12.691V	8+ TV	5/6	17(600)

Receivers and Errata

New December 2003; 24/7 "Hope Chs."
FTA (occ sport); also try 3863, Sr6.100
FTA-typ NTSC-occ sport, live Shuttle
PowVu CA + FTA (ABC-A-P 'til 2005)
was 4148Vt; some FTA
Korean MUX, reload 02/03
Tests, late May start; also 12.646H
Testing possible data links; June 2003
SE spot beam; was 4027LHC
east spot; 10TV + r each, vertical pol.
Here short-term (NSS-5 move); FTA + Nagravision 2
I+ FTA, MediaGd "2"; + 10.975 weaker
Testing Fiji region pay-TV (MDS) package (Sept '04)
DMV/NTL early vers. ooc feeds, typ ca
DMV/NTL early vers., ooc feeds, typ ca
DTS Direct to Sailors; audio previously FTA - gone
DMV/NTL early vers. ooc feeds, typ ca
east hemi 20.5 dBw +; new Sr
DMV/NTL early vers., ooc feeds, typ ca
SCPC, mixed CA and FTA feeds
PowVu CA; Auckland net feeds
CA, Leitch encoded
New PIDs Dec 03 very strong NZ, Pacific
FTA SCPC; East Hemi Beam-Tahiti
24/7 live space walks, conferences - West Hemi beam
SCPC, mixed CA & FTA, feeds
NBA feeds - probably CA - new Nov 2003
PowVu CA & TBN-JCTV FTA
16-QAM (not MPEG-2 compatible)
Data only but useful for dish alignment, top Sr check
Tests - TV but only temporary; data coming (NZ)

MPEG-2 DVB Receivers: (Data here believed accurate; we assume no responsibility for correctness!)

AV-COMM R3100. FTA, excellent sensitivity (review SF May 1998); new version Sept '99. AV-COMM P/L. 61-2-9939-4377.
AV-COMM Tiny Tot. FTA, 12Vdc operated, palm sized, low power consumption; review SF#120. Contact # above.
AV-COMM R3100(A). FTA, good sensitivity, ease of use exc (review SF May 2002). See above contact.
Coship 3188C. Review SF#107. Blind search FTA rcvr; works well. Available from Satlink NZ www.satlinknz.co.nz. (ONLY KNOWN DISTRIBUTOR IN WORLD)
Divitone: "Left-handed" review SF#115; does "code key" entry. Available <http://www.satmax.ws>
eMTECH eM-100B (FTA), eM-200B (FTA + Cb2), eM210B (FTA + 2xCI + positioner); KanSat 61-7-5484 6246 (review SF#89)
Fortec Star Lifetime. Two versions, both blind search, code-key programmable, one X 2 CI. Review SF#119. www.aDigitalLife.com
Humax ICR1 5400 (Z). Embedded Irdeto + 2 CAM slots; initial units had NTSC glitch, now fixed. Widely available; new software avail 04-04, SF#76.
Humax ICR1 5410 (Z). Adaptable version capable of holding multi-CA systems (SF#98, 99). Widely available; original importer Sciteq (www.sciteq.com.au).
Hyundai-TV/COM. HSS100B/G (Pacific), HSS-100C (China) FTA. Different software versions; 2.26/2.27 good performers, 3.11 and those with Nokia tuners also good; later 5.0 not good. SATECH (V2.26)
Hyundai HSS700. FTA, PowerVu, SCPC/MCPC. Review SF March 1999. Kristal Electronics, 61-7-4788-8902.
Hyundai HSS800CI. FTA, Irdeto (with CAM) + other CA systems, PowerVu, NTSC. Kristal Electronics, above; review SF#63.
INNOVIA IDS3088. Review SF#111. Blind search FTA receiver. High quality IRD; available Phoenix Technologies, and Satmax (<http://www.satmax.ws>).
ID Digital CI-24 Sensor. New August 2003; new lower noise tuner, extra sensitivity, CI Interface slot Irdeto 1 & 2; review SF#109. Sciteq 61-8-9409-6677.
MediaStar D7. FTA, preloaded w/ known services, exc. software (review SF July 1998). MediaStar Comm. 61-2-9618-5777
MediaStar D7.5. New (May 00) single chip FTA; review June 00 SF. MediaStar Comm. Int. 61-2-9618-5777
MediaStar D10. FTA and Irdeto embedded CA. VG receiver; see review SF#96, August 2002. Contacts immediately above.
MultiChoice (UEC) 660. Essentially same as Australian 660, not grey market contrary to reports. Sciteq tel 61-8-9306-3738
Nokia "d-box" (V1.7X). European, FTA, may only be German language, capable of Dr. Overflow software. SF#95, p. 14.
Nokia 9200/9500. When equipped with proper software, does Aurora, originally did pay-TV services provided software has been "patched" with "Sandra" or similar program. See SF#95, p. 14, SF#96 p. 15. SatWorld 61-3-9773-9270 (www.satworld.com.au)
Pace DGT400/DVR500. Originally Galaxy (Now Foxtel+Austar). Irdeto, some FTA with difficulty (Foxtel Australia 1300-360818). UECs replaced; Sept 18 (2003) "drop-dead" day; all were to have been "turned off" on that date (in fact, those with V1.13 CAMs may still be working; still does radio including CA, not TV).
Pace "Worldbox" (DSR-620 in NZ). Non-DVB compliant NDS CA including Sky NZ, no FTA; similar "Zenith" version (see SF#115, p. 15).
Phoenix 111, 222. PowVu capable, NTSC, graphics, ease of use. (111 review SF#57). SATECH (below)- 222; terminated
Phoenix 333. FTA SCPC, MCPC, analogue + dish mover. Detailed SF review SF#51. SATECH 61-3-9553-3399.
Pioneer TS4. Mediaguard CA (no FTA), embedded Msym, FEC, only for Canal+Satellite (AntenneCal ++687-43.81.56)
PowerVu (D9223, 9225, 9234). Non-DVB compliant MPEG-2 unless loaded with software through ESPN Boot Loader (see below). Primarily sold for proprietary CA (NHK, CMT etc). For service only - call Scientific Atlanta 61-2-9452-3388. For revision model D9850, see Scientific Atlanta (below).
PowTek. Blind Search Chinese sourced, field tests rate it highly. Source jason@aDigitalLife.com
Prosat 2102S. FTA SCPC/MCPC, NTSC/PAL, SCART + RCA. Sciteq 61-8-9306-3738.
SatCruiser DSR-101. FTA SCPC/MCPC, PowVu, NTSC/PAL. (Skyvision Australia 61-3-9888-7491, Telsat 64-6-356-2749); no longer available.)
SatCruiser DSR-201P. FTA SCPC/MCPC, PowVu, NTSC/PAL, analogue, positioner - (Skyvision - see above); no longer available.
SATWORK ST3618. Blind search FTA receiver. Fast search, problems, especially in "memory-filing" system; review SF#111. Available DMSi at tim@dmsiusa.com.
SATWORK ST3688. Blind search, 3000+ ch memory, multi-format RF modulator; improved version 3618. Review SF#113; available DMSi (above).
Scientific Atlanta D9223, D9234, D9225; Orig. PowerVu, superseded Dec 2003 by D9850. Commercial receiver, available TVO 61-2-9281-4481, John Martin
Strong Technologies SRT2620. SCPC, MCPC FTA, exc sensitivity, ease use, programming. Review SF#91 (ph. below).
Strong SRT 4600. SCPC, MCPC, PowerVu; exc graphics, ease of use, review SF#64. Strong Technologies 61-3-8795-7990.
Strong 4800. SCPC, MCPC, embedded Irdeto+ CAM slots, does code-key with additional software, Aurora. Strong Technologies 61-3-8795-7990.
Strong 4800 II. SCPC, MCPC CAM slots x 2 for Aurora +, Zee, Canal +, code key with additional software. Strong Technologies (above); review SF#103.
Strong 4890. SCPC, MCPC, 30Gb PVR, 2 CAM slots, DiSEqC 1.0, 1.2 (review SF#84), does code key with additional software; Strong Technologies, # above.
UEC Atlas/Titan (1000). New July 2003, replacing DGT400 for Austar. No SCART, L-band loop; also available Rural Electronics 61-2-6361 3636.
UEC642. Designed for Aurora (Irdeto), approved by Optus; w/new software, C-band FTA; faulty P/S. Norsat 61-8-9451-8300.
UEC660. Upgraded UEC642, used by Sky Racing Aust., Foxtel, limited FTA. (Nationwide - 61-7-3252-2947); P/S problems.
UEC700/720. Single chip Irdeto built-in design for Foxtel; unfriendly for FTA. Power supply problems, seldom sold to consumers; propensity to fall off back of trucks.
Winersat DigiBox 200. C + Ku basic receiver but includes Teletext for NZ TVOne, 2 VBI. Satlink NZ, fax 64-9-814-9447; long term teletext problems (loses TT).
"X" Digital. When modified with "aftermarket" Internet software, does Aurora and other V-1 CA without card; review SF#119. Strong Technologies (61-3-8795-7990).
Accessories:
Aurora smart cards. MYCRYPT (Irdeto V2) cards now available (Oct. 2003), Sciteq 61-8-9409-6677.
PowerVu Software Upgrade: PAS-8, 4020/1130Hz, Sr 26.470, 3/4; pgm ch 11 and follow instructions (do not leave early!)
PowerVu (Pacific) repair service: Cable & Sat Svcs. Darius West. 61-2-9792-1421 (Email darius@cases.net.au)

WITH THE OBSERVERS

ApStar V/Telstar 18/138E: "Reasonable strength transponders on 3866H (Sr 3.355), 3759H (Sr 24.843), 3786H (Sr 5.000), 3846H (Sr 4.292) and 3869H (Sr 5.000) using 3m dish." (LMathews, Auckland)

AsiaSat 4/122E: "Tests run with 90cm dish indicate 12.333V signal recently testing works fine into Auckland region; local installers claim sometime in next month 8 programme channels here, 'half Chinese, half English'." (JWadsworth, Auckland)

Intelsat 701/180E: "BBC World, ESPN noted on Fiji TV 11.074H (Sr 43.600, 1/2)." (Luntz) (Editor's note: Remember, Fiji TV is scheduled to move off of I701 sometime before end of November - and - BBC World is not likely to be a part of their MUX, ultimately.) "PBS's ex-TARBS uplinked package for mid-western Pacific 12.726H (28.066, 3/4) has added three Indian service channels (Zee TV Australia, Zee Cinema Australia/New Zealand, Zee Music), MDS CA." (Harry L) "RTV, Pink Plus also in this MUX." (Charles)

NSS-6/95E: "Serbian/Russian services BN R.Srpska and RUS-ORTi have appeared on 12.729V, Sr 27.500, 7/8; FTA as of latter September." (BRichards, SA) "12.678V, Sr 6.510 ABC A-P and ABC radio noted FTA." (DN)

Optus B3/152E: "<http://www.ubiworldtv.com> is site for rebirth of TARBS; \$49.95 per month starting point." (LeonardT) "UBI World now has graphic up on spare channels, 'UBI World TV. For more information call (02) 9776-2727'. Also scrolling across screen at bottom, 'If you want to continue viewing these channels on UBI World TV, call (02) 9776-2727'. My electronic-organiser shows TARBS toll free was 1300-78-2727 while Tony Palumbo's number at TARBS was (02) 9776-2336. It seems the new UBI number is in the same building as TARBS was located. Not much of a surprise, here. Also, both UBI's T14 and T15 appear to be on High Performance footprint - from National B." (IF, Qld) (Editor's note: Try T14 lower 12.613H, T14 upper 12.640H, T15 lower 12.674H, T15 upper 12.701H, all Sr 22.500, 3/4) "T11/12.438H (centre) has nominally been used for SPCP feeds. Late in September, a new MCPC width carrier appeared, no modulation yet. Simultaneously, 12.501H/T12's unmodulated carrier (Sr 30.000, 7/8) disappeared. Next day, they reversed - again." (AI, NSW) "Encryption (never used) on T13/12.563H ('The Horse Channel') was dropped; was Mcrypt." (NS, NSW) "Reference your report on Al-Manar

AT PRESS DEADLINE

YES - Fiji TV Sky Pacific IS considering a "C-Band" solution, high power to 1.2>1.5m dishes for mid-Pacific region, RHC. Sydney uplinked PBS, I701, "outreach" for UBI/TARBS, moved to 12.648H (Sr 28.066, 3/4; CA). Korean Onnuri TV new FTA 12.729V, Sr 27.500, 7/8, NSS-6. New CCTV channels 4129H, Sr 13.240, 3/4 ("E" & "F"), As3S.



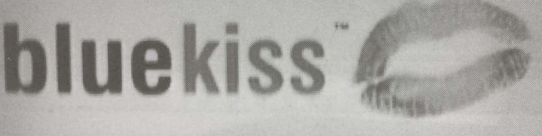
**Live
Interview**
with
Dr. Geoffrey Marcy
University of
California, Berkeley

LIVE SHOTS

NEXT

Coming up next on NASA Television

NASA 24/7 service I701, 3854RHC, Sr 2.000, 3/4 is an incredible resource for those located inside West Hemi beam (includes all from dateline west - yes, NZ). Live space station coverage, distant probes, even new launches. Worthwhile and FTA!



bluekiss™

www.bluekiss.tv

BLUEKISS in NZ? Waipu TV (paulburton@xtra.co.nz; 09 432-0973) is official agent for this AsiaSat 3S "adult service." They do site surveys (As3S being low look angle for NZ) with transportable dish, report it "will work" (barely - pardon the pun) on dish as small as 1.8m. One year subscription, Irdeto or Viaccess.

SF#121 - they have been removed from Globecast (12.525V)." (Lawrence) "T13/12.407V, Sr 30.000, 2/3

WITH THE OBSERVERS: Reports of new programmers, changes in established programming sources are encouraged from readers throughout the Pacific and Asian regions. Information shared here is an important tool in our ever expanding satellite TV universe. Photos of yourself, your equipment or off-air photos taken from your TV screen are welcomed. TV screen photos: If PAL or SECAM, set camera to f3.5-f5 at 1/15th second with ASA 100 film; for NTSC, change shutter speed to 1/30th. Use no flash, set camera on tripod or hold steady.

Alternately submit any VHS speed, format reception directly to SatFACTS and we will photograph for you. Deadline for November 15th issue: November 3 by mail or 5PM NZST November 5th if by fax to 64-9-406-1083 or Email skyking@clear.net.nz.



**Apologise for this Interruption.
It is due to seasonal solar interference
and beyond our control.
Normal service will be resumed
As Soon as Possible.**



Sun Outage

This temporary programme loss is caused by the alignment of Sky's satellite dish, the satellite, and the Sun. Services will resume in a few minutes.

We sometimes overlook that while our individual antennas will be zapped by solar noise during September and March (Solar equinox) the programmers who depend upon satellite for their own feeds are also shut-down. Two examples of how SKY (NZ) and Globecast (Australia/NZ) advise viewers to hang around - normal service will return "as soon as possible" / "in a few minutes."

(Aurora Business). Sky (Racing, Aust) is now using channel labelled 'SKY8' at PIDs (decimal) V=544, A=545, PCR=544 for pay-per-view events - previously using BTV3. SKY8 is encrypted in Irdeto unique-to-Sky format whereas BTV3 was in Mcrypt and Irdeto V1." (NS, NSW) "GOD TV has returned here after 6 month absence using PIDs of Australian

Christian Channel. Sigaram 2 is new movie channel, to be CA, thru 1300-303-174." (Leonard)

Optus C1/156E: "T1's upper 12.325V (Sr 24.444, 1/2) remains but lower (12.290V, 24.444, 1/2) is gone." (IF, Qld) "Australian Christian Channel (which is mostly non-Australian content) on 12.365V, Sr 27.800, 3/4 (V=1091, A=1092) is FTA running 4:3 (previously

WAVELENGTH

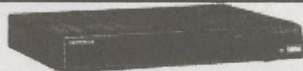
communications

Tel: +65 6332 2272 Fax: +65 6332 3017 sales@wavelength.com.sg

www.satellite.com.sg

1 Rochor Canal Road, #02-26 Sim Lim Square S(188504)

TOPFIELD



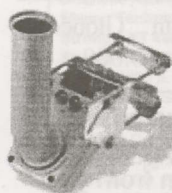
- TF3030F (FTA)
- TF3000CIpro (Common Interface)
- TF3000CIppro (Common Interface W/Built-in Positioner)
- TF3200IR (Irdeto Embedded)
- TF4000PVR (Personal Video Recorder 40GB)
- TF5000PVR (PVR 80G)

MAXPLUS HTS 9300 +

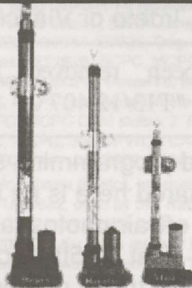
- Single slot card reader (viaccess, irdeto, conax)
- 4000 channel capacity
- 8 event timer
- 4 sorting modes
- Software upgrading

SUPERJACK

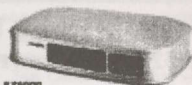
Positioner



**DG-120
DiSEqC H-H
Mount**

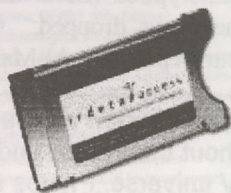


**Actuator
12" to 36"**



**EZ-2000
EZ-4000
EZ-6000
VBOX II SiSEqC 1.2**

CI Module



irdeto 2.09 cams



viaccess 2.5 cams

These firms are available to do contract dish installs

Fiji Islands

C.B. Communications, **Sigatoka** (Ph6520227; cbcom@connect.com.fj) (*)
Safeway Electronics Ltd, **Suva + Lautoka + all islands** (Ph 3395300/6666822; safeway@connect.com.fj)
SATSHEK Communications, **Suva** (Ph3307933; parmarbros@connect.com.fj)

New Zealand:

Tauranga TV Svcs Ltd, western **Bay of Plenty** (ethnic Ku packages) (Ph 07 578 7276; dave-tts@clear.net.nz)
Raycom, **Coromandel Peninsula/Waihi/Tairua** (B1 FTA) (Ph 07 864 8083; raycom@slingshot.co.nz)
Frontline Electronics, **Mosgiel** region (ethnic Ku packages) (Ph 03 489 4001)
Advanced Aerials, **Napier/Hawkes Bay**, comcls (Ph06835 6618/021 272 6618; advanceaerials@xtra.co.nz)
Nelson TV & Video Svcs, all **Nelson Bays** (Ph 03 548 0304; ntv@tasman.net)
Rexels AV Electronics Ltd, **Palmerston N, Manawatu, Hawke's Bay, Wanganui** (Ph 06 357 6186; rblair@infogen.net.nz)
The Antenna Man, **Taranaki** (Ph 06 758 1633; antenna.man@xtra.co.nz)
Quality Pics, entire **Waikaito** region (Ph 0800 007 667; maxnkay@xtra.co.nz)
Smartzone, **Wellington-Wairarapa-Palmerston N** (C+Ku) (Ph 029 289 6333; info@smartzonesystems.co.nz)
Homestead HiTech, **Wellington, Masteron-Levin** (PAS-2, B1, B3) fitzgera@ihug.co.nz)
Waipu Cable Television, **Wellsford to North Cape**, (Ph 09 4320 973; waipucable@xtra.co.nz)
John Stewart, **southland** including Otago (john.s@tritec.co.nz)

New South Wales:

Woolgoola Antenna Service, **Coffs Harbour** (50km radius) (Ph 0266561889; woopaerials@iprimus.com.au)
Town & Country Antennas, 60km radius **Murwillumbra/Tweeds Heads** (Ph 02 6672 8595)
Newcastle Satellite, **Newcastle + Lwr Hunter Vly** (Ph 0249614449; satellites@netcentral.com.au)
Home Satellite TV, 40km radius **Port Macquarie** (Ph 02 6584 3838; kazbah25@optusnet.com.au)
Goodcom Communications P/L, 100km radius of **Walcha** (Ph 02 6777 1044; goodcom@northnet.com.au)

Queensland:

Cape York Electronics, **Cooktown and "the cape"** (started 1970s) (Ph 07 40 695 252; cyectn@tpg.com.au)
Phil's Antenna Systems, 100km radius of **Hervey Bay** (C+Ku since 1996). (Ph 0741 256 273)
Rick Dalton TV & Satellite, 100km of **Kawana Waters** (C + Ku). (Ph 07 5493 4343; rick@antechtv.com.au)

South Australia

Central Eyre Comms, **Arno Bay-Eyre Penins.** (Ph 08 8628 0203; centraleyrecomms@ozemail.com.au)

Tasmania:

.65 Electronics, **Launceston and Northern Tasmania** (Ph 03 63 330820; sales@65group.com)

Victoria:

Riviera Satellite Antenna Svcs, 100km radius **Bairnsdale** (Ph 03 5152 4884; gilhooleystv@net-tech.com.au)
Leden Communications, (100km radius) **Glengarry** (Ph 0427 745105; leden@netspace.net.au)
Geoff's Communications, 60km radius **Korumburra** (Ph 0408 582010; gwyhoon@tpg.com.au)
Foreign Satellite TVP/L, **Melbourne (region)** C+Ku since 1995 (Ph 040445509; joe12@dodo.com.au)

Solomon Islands

Satellite Solutions, **Honiara + all Solomon Islands** (since 1994) (Ph 677 25589, satsol@solomon.com.sb) (*)

Thailand:

JSAT tv/Jon Clarke, **ex-pat community - nationwide** (Ph +661 513 5418; info@jsat.tv)

To be listed here, tell us: 1/name of your business or your name, 2/ your home town and radius-distance covered from same, 3/ your telco, 4/ your e-mail. Send to skyking@clear.net.nz, or fax to ++64 9 406 1083 or mail to SatFACTS, PO Box 330, Mangonui, Far North, NZ. No, there is no charge to be listed but you must be a SatFACTS subscriber! (*) - NEW or modified this month.)

widescreen even for the 4:3 content) and EPG is changed from 'No broadcast this channel' to 'Uplifting programmes for all ages'. (NS, NSW) (Editor's note: Previously B3 12.525V.)

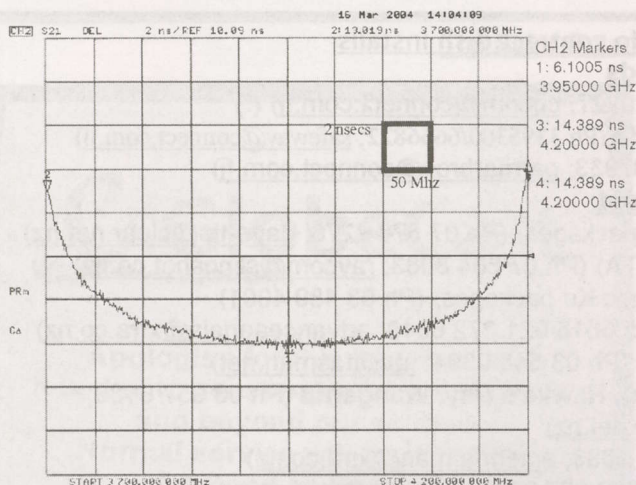
Palapa C2M/113E: "Kabelvision MUX has gone from 3580H; RCTI was included, briefly, before shut down." (Arnold) (Editor's note: Perhaps 'Palapa' translated means 'unstable platform'?)

PanAmSat PAS2/169E: "3892V, Sr 13.240, 2/3 PanAmSat test card FTA (new)." (Bill Richards, SA). "ABC advises they will shut down PAS-2 ABC A-P TV service (but leave narrow band ABC radio) here 'early in 2005', and remove ABC Radio from PAS-8 to allow 3+ separate TV channels (A-P newly time shifted) for TV." (PBurton, NZ)

PanAmSat PAS8/166E: "3836V, FTA, Sr22.000, 3/4, Azio TV." (Kobe) "ABC Kids seen testing in ABC A-P MUX 4180H; briefly." (Lawrence) (Editor's note: ABC Kids is scheduled only 3-5 hours daily, and not until March.)

Thaicom 2-3/78.5E: "The replacement date for this satellite (T#3) has been moved forward from 2008 to 2006 following most recent round of technical problems." (LarryT) "3671H, Sr 13.333, 3/4 is God Asia Channel, FTA." (BRichards, SA)

Soapbox: "Forum discussions concerning 3.5 GHz terrestrial interference in Australia is located at <http://www.vetrn.com/forums/showthread.php?t=2034>." (JR) "TVNZ will close down their Satellite Service division December 31, shifting remaining business to technical arm at



Typical Group Delay 7893D (7894D)

3.7 - 4.2 GHz bandpass filter Group Delay (see p.22).

Av-Comm PTY Ltd is THE SatFACTS distributor for Australia.

**Prompt delivery, bonus materials
with every issue!**

email cgarry@avcomm.com.au
telephone (02) 9939 4377

BCL. 90% of traffic into and out of NZ now goes via Tasman 2 and Southern Cross fibres." (**Kenneth**, NZ) "Correct spelling is Viti not Vita (Levu) for Fiji Island where Suva is located - perhaps your spell check does not include Fijian?" (**KClark**, Fiji) "Regarding NASA-TV, Email from Stanley Jones (SJones@cet.edu) in response to my query ('Would you be able to give permission to include NASA TV in our schedule mix?'), says, 'If you are receiving the signal directly from us you do not need (our) permission to rebroadcast NASA TV. It falls under the area of public domain so broadcast as much as you like!' Needless to say, we will be adding NASA TV material to our VOA, Deutsche Welle, CCTV and other scheduled materials from satellite." (**Hans Versluys**, Director of Programming, Triangle TV, Auckland) "UNwired advertising offers \$99 battery for modem, 'allowing it to be used in the garden, on your balcony, at university or even at your local park or cafe'. Great! Now the sources of interference will be portable and a moving target!" (**IF**, Qld) "TVNZ has registered the trade names 'FREEVIEWTV, FREESATTV, FREESAT and FREEVIEW to cover their possible expansion of present B1 transponder first to 8-10 FTA channels, later to more channels when additional space becomes available after D1 launch in 2006." (**Gregory**) "TARBS' Mike Boulos appeared on SBS Radio to announce UBI's official start on B3." (**James**) "Reference AUSTEXT. This is on Network 7 and most of the affiliates but still not on Central 7 so currently only those in WA (GWN) have access to this excellent teletext offering." (**IF**, Qld) "Mail order Christian dish? TBN South Pacific (PO Box 61, Paaparamu 6450) offering 'Satellite Receiver Kitsets' with '5 Christian channels anywhere in Australia-NZ' by mail order for as low as NZ\$410 (dish, LNB, receiver et al)." (**Harold**, Auckland)



DMS International

Old fashioned to a fault?

WE STILL PRACTICE CUSTOMER SERVICE!

Product-line of the month: Dipole antenna with pigtail lead, created for 1089, Wi-Fi, wireless (UNwired/Whoosh/Counties) in the following "stock" frequency bands. **1.8, 2.4, 2.1-2.7** (broadbanded), **3.4** and **5.8 GHz**. OR - tell us which range you wish - we'll design it, submit samples for approval, and meet your time schedule for delivery. Connectors? N (male or female), SMA - or, tell us what you require.

"Super LNB" including Universal (9.75 & 10.6 LO) in quantity (40,000 per month? No sweat!) + LNB-C, LNBf-C, LNB-Ku, Ku High Stability (500 KHz) DRO LNB. High-grade FTA and CI (Irdeto, NagraVision, Viaccess) receivers 2-45 Sr produced to your requirements (1,000 minimum private label). DiSEqC H to H mounts, DiSEqC Positioners, Signal Level meters + installer Tone Meter + Spectrum Analysers. Site Survey and Installation Tools. And of course antennas (75cm HOTDISH offset is especially popular), cable/fittings/tools. On the way: PVR/new rack mounts/more!



DMS International specialises in creating hard to find specialty products for medium to large volume users. We are an "original source" supplier prepared to create your "brand" for you!

<http://dmsiusa.com> & <http://dmswireless.com> ♦ Tel ++1-770-529-6800 ♦ Fax ++1-770-529-6840
WORLD SOURCE for DTH Broadcasters, Distributors and Dealers



SCRATCH!

SatFACTS September (#121) was a wakeup call; spectrum "terrorists" have flow a fuel-laden 747 directly into C-band. Think of it as the "9/11 of C-band satellite TV."

Overly dramatic? I think not. For 24 years now (the first C-band systems in Australia were installed by outback "hobbyists" in 1980) our C-band "tower" has been providing access to international television for anyone willing to collect the parts and install the system. The integrity of this service has relied upon various undertakings put in place by the Australian Government which, as a member of the ITU (International Telecommunication Union), has agreed in writing supported by formal treaties to abide by the rules of frequency/spectrum conduct.

The ITU is a body of nations, meeting every two to four years (the meetings were once known as 'WARC' for World Administrative Radio Conference; now "WRC"), with permanent headquarters in Geneva, Switzerland. The ITU is the present codification of a series of international gatherings stretching back to 1911 and the initial realisation that early "spark" transmitters were sending out signals that crossed international borders. There is a parallel to the United Nations (the ITU is in fact closely related to the UN but it came first whereas the UN was formed during World War Two).

Not all nations belong to the ITU; Australia and New Zealand do, however. When the ITU meets to seek agreement on matters relating to spectrum allocation and usage, each country's representative(s) has the legal right to vote for, vote against or abstain from voting on each issue. They also have the right to "vote for" (as a matter of international policy) but to "reserve" as a "footnote" to the final document areas in the agreement which they do not totally support.

WARC events pre-satellite concentrated on the frequency bands below 1,000 MHz (1 GHz) and by tradition the frequencies we now routinely use for satellite (up to and down from) were left out on the theory that transmissions in this region were typically short in range and if they happened to cross a nation's borders some accommodation could be worked out between the two countries involved without tying up valuable WARC agenda time. Satellites changed all of that thinking, of course.

The ITU's primary goal is to create a set of frequency assignments through the complete "radio spectrum" that will allow maximum utility of this finite resource. With the exception of "reservations" filed by non-agreeing countries, the short-wave (3 - 30 MHz) bands, the AM radio band (530 - 1,800 KHz) are essentially universal world-wide. Without an ITU base, chaos in the form of uncontrolled interference would prevail as each country allowed transmitters to operate

without respect to the laws of physics that send signals from one nation to virtually the entire globe.

In the frequency region above 1 GHz, because short distances are the rule for terrestrial based transmitters, the ITU sought to reach an international accord that would "reserve" specific bands (such as 3.7 - 4.2 GHz) for identified purposes - satellite to earth, for example. The logic here is inescapable. You don't allow construction of a military gun range immediately next door to a library - the noise from one would render the desired "quiet" of the other useless.

In 1979 the ITU, having in prior sessions established 3.7 - 4.2 GHz as "C-band downlinking" spectrum, considered (and adopted) a modification to this reserve status - expanding the C-band downlink portion to 3.4 (-4.2) GHz. Australia and New Zealand attended and voted for the expansion. The countries agreeing to this expansion, including Australia and New Zealand, voted to remove/eliminate terrestrial users of the 3.4 - 3.7 GHz region, "by 1985."

One might suppose that tracing the current ITU agreements, locating "footnote reservations" and verifying the current status of 3.4 - 3.7, would be a simple "Google" search on the web. Wrong. Try www.itu.int for a quick and disappointing lesson in bureaucracy and discover that for varying fees (such as 430 CHF) one can own his or her own set of CDs covering several dozen different topics.

The ITU has a mandate which reads as follows:

"The radiocommunication sector acts as the coordinator in managing the usable radio frequency spectrum efficiently, keeping it free from harmful interference, and adopts international regulations and treaties governing this use."

The use of 3.4-3.7 GHz for terrestrial broadband links, now growing at an exponential rate in Australia (and New Zealand - see p.22, this issue - editor), is obviously "harmful interference." Footnotes ("reservations" to the general ITU plan for 3.4-3.7) appear as S5.429 (Saudi Arabia retains 3.3 GHz for fixed and mobile services), S5.430 (3.3-3.4 is similarly reserved in Cuba), S5.431 (Germany reserves 3.4-3.475 for amateur radio), S5.432 (Japan reserves 3.4-3.5 for mobile service). If either Australia or New Zealand had their own "reservations" concerning this spectrum at the time C-band "Fixed-Satellite" (space to earth) was expanded, available sources of reference fail to locate such footnotes.

And this suggests? That perhaps, *possibly*, Australia and New Zealand, in creating terrestrial services in the 3.4-3.7 GHz region, are in violation of their previous ITU agreement(s). And if so - that means? ITU regulations are ratified by each country's legislature and have the same force and meaning as any other kind of "International Treaty" entered into by a Government.

And that means? Well, it would *suggest* Australia and/or New Zealand are breaking a law. And when a nation breaks a law, citizens of that country have legal recourse before the courts of the nation, to seek "compensation" and settlement of grievances.

Australia, reportedly, received AUD\$100 million for the "sale" of the 3.4-3.6 GHz spectrum to private firms. \$100 million would provide 200,000 MFC \$500 filters to those citizens "damaged" by the Government's illegal action. Surely there are solicitors out there willing to take this issue on for a cut of \$100 million!

For 121 months - 10 years + 2 months -
SatFACTS has been here when you needed information.

For 561 months - 46 years + 10 months -
"Coop" has been here when you needed information.

Perhaps you missed something important? It is still available!

Hard Core (seriously SERIOUS!) "How to do it" References

- ☐ **UHF 20' Parabolic:** For a few hundred dollars in materials at the local lumber yard, you can build a 20+ dB gain UHF parabolic capable of providing "scatter region" reception to 300km! \$15 all regions.
 - ☐ **Surface Wave 40+ element "yagi"** format single channel antennas. Stack 'em! Designed by the legendary Oliver Swann, this is the biggest, highest gain single channel VHF-UHF antenna ever created. Oliver routinely used them for 600km reception. Not for careless folks. \$10 all regions.
 - ☐ **Tech Bulletin 9402: MATV** (master antenna terrestrial) systems - wiring up a home, motel, hotel, camp grounds from one set of antennas - \$15 all regions.
 - ☐ **Tech Bulletin 9404: Home Satellite Dish Systems.** "Newbie" trying to work out what all of those funny terms mean and how a home system goes together? Perfect. \$15 all regions.
 - ☐ **Tech Bulletin 9405: Satellite to Room Systems.** Combining MATV (TB 9402) with satellite (TB 9404) to distribute satellite TV to multiple outlets - 2 to 1000+! \$15 all regions.
 - ☐ **TB9301: Terrestrial Antenna Systems** to eliminate co-channel interference, stack for additional gain. \$15 all regions.
 - ☐ **TB9302: (Terrestrial) Weak Signal Techniques;** off air reception to 300km+ using conventionally available equipment. Seriously detailed. \$15 all regions.
 - ☐ **TB9303: UHF - Big Antennas** for 300km+ Reception over terrain! Professional. \$15 all regions.
 - ☐ **TB9304: Beating Noise** - identify source, fix noise interference to TV, radio reception. \$15 all regions.
 - ☐ **TB9305: Cable TV** - the basics. How a cable system works, how to build one! \$15 all regions.
 - ☐ **Nelson Parabolic Manual.** Step by step allows you to build satellite dishes with high accuracy to 13' - 4m diameter. Nelson was the very best and his techniques have stood the test of time. \$15 all regions.
- SOFT CORE - recent back issues of SatFACTS (while supply lasts)**
- ☐ **SF#96** (August 2002). **Nokia BDM;** faster channel zapping. \$10 all regions.
 - ☐ **SF#97** (September 2002). Turning **FatCAMS** into Multicams. \$10 all regions.
 - ☐ **SF#100** (December 2002). **d-box2** BIG report. AC3 surround sound. \$10 all regions.
 - ☐ **SF#101** (January 2003). **d-Box2** conversion to LINUX operating system. \$10 all regions.

SatFACTS NEW Subscriptions!

- ONE YEAR (12 issues): ☐ Australia & Pacific - A\$96 per year airmail; ☐ New Zealand - NZ\$75 per year, fast post; ☐ Balance of world - US\$75/Euro75 per year airmail.
- THREE YEARS (36 issues): ☐ Australia & Pacific -A\$220 airmail; ☐ New Zealand - NZ\$170 fast post; ☐ Balance of world - US/Euro \$175 airmail.

WHO YOU ARE (where we ship to) - How Much You are Spending!

My name _____

Company name (if applicable) _____

Ship Address _____

Town/city _____ postal code _____ State/Province _____ Country _____

☐ Cheque in the amount of \$ _____ enclosed (to SatFACTS)

☐ Charge to my VISA or Mastercard \$ _____ - sorry - no other cards (#118)

_____ expires ____/____

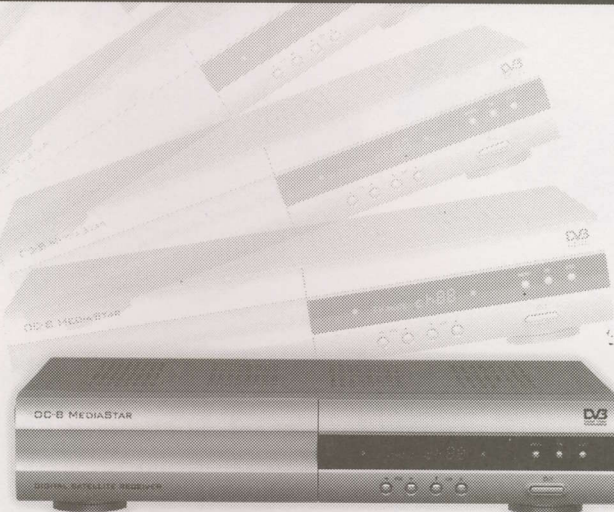
Name as it appears on card _____

-Fax to ++64 9 406 1083, or mail to SatFACTS, PO Box 330, Mangonui, Far North, New Zealand

THE DC-8 HAS LANDED



- 2 Slot common interface for Irdeto, Seca, Viaccess
- Symbol rate 2-45 MBPS
- Digital Audio AC-3 support by SPDIF
- S-Video output
- Close Caption subtitle and Teletex
- DiSEqC 1.0 and 1.2
- NTSC-PAL auto converting
- DSR to DSR copy



MediaStar
Communications
International
24 Bosci Road
Ingleburn NSW
2565 Australia

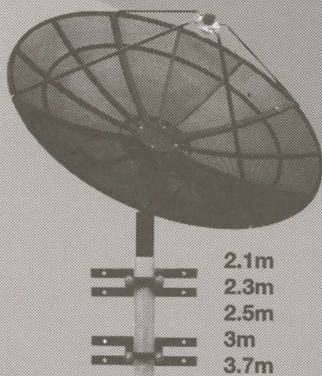
Tel: 02 9618 5777

Fax: 02 9618 5077

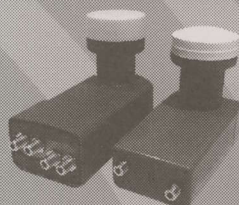
www.mediastar.com.au



MediaStar
High Performance



Heavy Duty Frame
Stronger Mesh



11300 MHz L/O
Dual and Quad Output



Mustang Actuators
18", 24", 36", 56"



Aston Cams



EZ2000+
Positioner



Making communications shine. MediaStar

Web: www.sciteq.com.au
Email: sales@sciteq.com.au

Ph: +61 8 9409 6677
Fax: +61 8 9309 5210

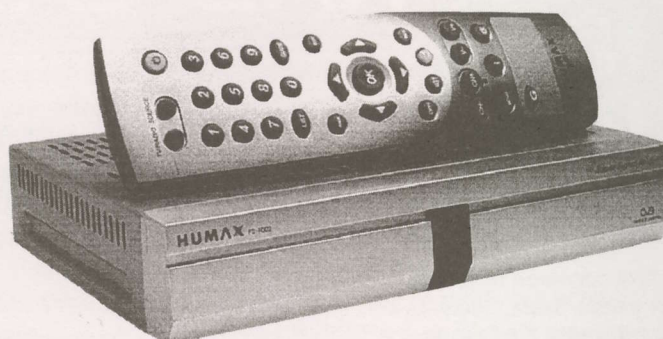
SCITEQ

Pty Ltd ABN 34 009 235 090

HUMAX

Humax F2-1002 FTA Digital Satellite Receiver

NEW!



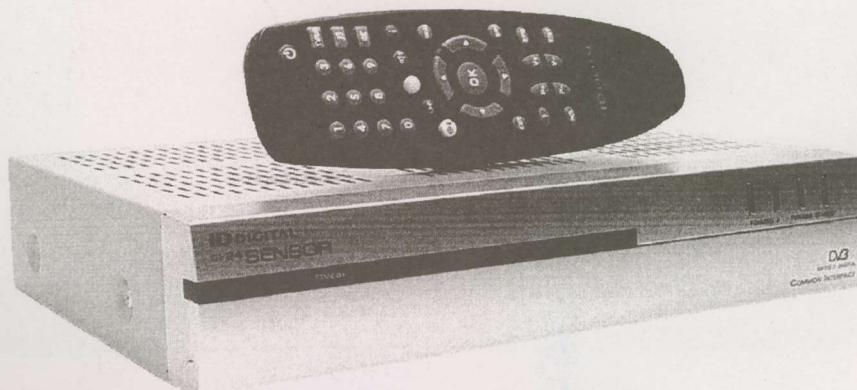
Stock No.
101010

**Free to Air, Compact Design,
Super Signal Finder, High Sensitive Tuner
and USALS Capable
at an Affordable Price.**

Order online at www.sciteq.com.au

Back by popular demand

ID Digital CI-24 Digital Satellite Receiver



Stock No.
102001

ID DIGITAL